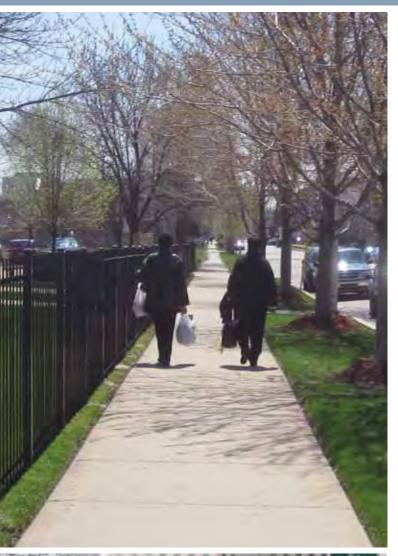
# CITY OF CHICAGO 2011 PEDESTRIAN CRASH ANALYSIS

# TECHNICAL REPORT









Chicago Department of Transportation





## **CITY OF CHICAGO**

## 2011 Pedestrian Crash Analysis

(2005-2009 CRASH DATA)

## **Technical Report**

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## **List of Acronyms**

A Serious Injury

ACS American Community Survey
CBD Central Business District
CCA Chicago Community Area

CDOT Chicago Department of Transportation

CPD Chicago Police Department
CTA Chicago Transit Authority

FARS Fatality Analysis Reporting System
FHWA Federal Highway Administration
GIS Geographic Information System
IDOT Illinois Department of Transportation

K Fatality

NHTSA National Highway Traffic Safety Administration

## I Introduction

Identifying safety concerns through analyzing crash data is one of the initial steps outlined in *How to Develop a Pedestrian Safety Action Plan*, published by the Federal Highway Administration (FHWA). In 2007, the University of North Carolina Highway Safety Research Center prepared *Chicago Pedestrian-Motor Vehicle Collisions 2001-2005: Crash Factors and Spatial Analyses* (2001-2005 Study). The report identified the factors prevalent among motor vehicle crashes involving pedestrians and identified areas in the City of Chicago (Chicago) where these crashes occur.

This analysis builds off the previous effort with data from the five-year period of 2005 through 2009. The findings will inform the Chicago Department of Transportation (CDOT) on how to focus pedestrian safety efforts in the future. The comprehensive nature of this analysis will help CDOT determine where engineering improvements may be needed, how and where enforcement could play a role, and what educational messages should be imparted and to whom.

#### 1 KEY FINDINGS

## Trends in pedestrian crashes from 2005 through 2009

- ▼ Pedestrian crashes in Chicago have followed a downward trend since 2001
- ★ Chicago has a low pedestrian fatality rate among peer cities

## Who was involved in pedestrian crashes?

- **★** The age group of 15 to 18-year-old pedestrians had the highest crash rate per population
- ★ More males than females were involved in crashes as pedestrians and motorists; however, more females were involved in crashes in Chicago as compared to national statistics
- ★ Taxi involvement in pedestrian crashes within the Central Business District (CBD) was 28%
- ★ Taxi involvement in pedestrian crashes outside the CBD was 2%

## When did the pedestrian crashes occur?

- ★ From 2005 through 2009, Thursdays had the most crashes
- **★** 3:00 6:00 p.m. was the high crash time period, 6:00 9:00 p.m. was the second highest crash time period

#### What were the roadway characteristics of pedestrian crashes?

- ★ 50% of fatal and serious injury crashes occurred on arterial streets, despite accounting for approximately 10% of the street miles in Chicago, based on Illinois Department of Transportation roadway classification system
- **★** Eight out of the top twelve neighborhood high crash corridors were 4-lane roadways; all were arterials
- **★** 78% of all crashes and 80% of fatal and serious crashes occurred within 125 feet of the midpoint of an intersection; 53% of all crashes were recorded as intersection-related on crash reports
- ★ Youth crashes, ages 0 to 14, were more likely to occur on local streets than other age groups (43% versus 23% overall)
- ★ Overall, the majority (76%) of the crashes occurred on arterial and collector roadways
- ★ Youth pedestrians (0 to 14) were more likely to be struck mid-block and not in a crosswalk than other age groups
- ★ Older pedestrians were more likely to be struck in a crosswalk than other age groups

## Where in Chicago did the pedestrian crashes occur?

- ★ A band of community areas stretching from the Loop and Near North Side community areas on the east to the Austin community area on the west contained the highest number of overall and/or fatal and serious injury pedestrian crashes
- ★ The top 4 Chicago Transit Authority rail stations for crash rates based on ridership were along the Green Line
- ★ 79<sup>th</sup> Street contained three of the top twenty-two intersections for overall pedestrian crashes and two of the top twelve corridors for fatal and serious injury crashes
- ★ The Austin community area contained three of the top twenty-two intersections for pedestrian crashes
- ★ In an examination of various factors including crime, income, race, language spoken, and Walk Score®, the strongest correlation found was between pedestrian crashes and crime

#### What factors were most common in pedestrian crashes?

- ★ Hit and run crashes account for 40% of fatal crashes in Chicago versus 20% nationally; hit and run crashes account for 33% of overall pedestrian crashes in Chicago
- ★ Pedestrian injuries and fatalities in hit and run crashes average out to two per day.
- ★ Of 20 recorded actions, the most common pedestrian action at the time of a crash was "crossing with a signal"; pedestrians crossing with the signal was more common in the CBD than outside
- ★ Citywide, 49% of pedestrians who were struck at signalized intersections were crossing with a signal
- ★ 60% of pedestrians in the central business district (CBD) were crossing with the signal
- ★ 47% of pedestrians outside the CBD were crossing with the signal

- ★ Citywide, 52% of pedestrian crashes at signalized intersections involved turning vehicles; 36% were left turns and 16% were right turns
- ★ 66% of the crashes in the CBD involved turning vehicles; 48% were left turns and 17% were right turns
- ★ 48% of the crashes outside the CBD involved turning vehicles; 32% were left turns and 16% were right turns

#### 2 DATA AND ANALYSIS METHODS

#### 2.1 Pedestrian Crashes

Crash data were provided for all traffic crashes within Chicago from 2005 through 2009 by the Illinois Department of Transportation (IDOT). All pedestrian crashes during this time period were analyzed.

The data were organized into three sets of files; crash, vehicle, and person. Case numbers unique to each individual crash link these data together. The file codes for each file type are provided in **Appendix A**.

The crash files contain one record for each crash and information regarding the crash location and the general conditions of the roadway and the environment. The crash files include a field, "Collision Type Code." The crashes with a type code of "Pedestrian" were analyzed in this study and are referred to simply as "pedestrian crashes." This type code includes all collisions involving a pedestrian and a motor vehicle in which the pedestrian was the first point of contact for the vehicle. If the vehicle struck another vehicle or object first, before striking the pedestrian, the crash is not coded as a pedestrian crash.

The vehicle files contain one record for each vehicle involved in crashes. These files were joined to the set of crash files that were extracted as pedestrian crashes. The vehicle files allowed examination of characteristics such as vehicle type and vehicle use.

The person files contain one record for each person involved in a crash. These include information about the condition of the driver and pedestrian and their actions prior to the crash. For information about motorists, the person files were joined to the crash file set of pedestrian crashes. For statistics regarding pedestrians, the person files were simply analyzed for all entries coded as "PersonType = Pedestrian." As such, it was possible to analyze the characteristics of all pedestrians involved in a crash instead of limiting it to those pedestrians who were struck first in a crash. For this reason, the analyses dealing with pedestrian characteristics that were drawn from the person files have a higher total than those analyses using the crash files. For instance, from the crash files, 17,487 crashes were coded as pedestrian crashes during this time period; however, from the person files, it is evident that there were 18,377 pedestrians involved in those crashes.

Additional data also were collected to complement the crash analysis. Roadway infrastructure, traffic control, and land use data were provided by the Chicago Department of Innovation and Technology. This information was useful in providing context such as the types of streets and intersections where crashes were occurring. US Census data from the 2005-2009 American Community Survey (ACS) were also used for general statistics on the population of Chicago. 2010 Census data were not available at the time of this study. Statistical analyses were performed on the crash data to identify trends in overall statistics and demographic, temporal, geographic, environmental, and behavioral factors. The information is presented throughout this report as maps, tables, and figures.

National data on pedestrian crashes were used as comparisons to the Chicago data. National pedestrian crash statistics were obtained from the National Highway Traffic Safety Administration (NHTSA) and Fatality Analysis Reporting System (FARS). In addition, comparisons are provided to findings from *The New York City Pedestrian Safety Study & Action Plan* (NYC Study), which included a pedestrian crash analysis. References to national statistics and the NYC Study are made throughout this report.

#### 2.2 Pedestrian Exposure

It is difficult to interpret trends in crashes as there are many variables that affect the number of crashes occurring, including the number of vehicles and pedestrians. Another variable that is related to crashes is economic activity. During periods of recession, crashes often tend to decline while the opposite is true during periods of economic growth. One way to address this issue is to compare crashes to traffic counts and transit use over the same period as both measures provide an indication of potential pedestrian exposure to crashes.

Several attempts were made to account for pedestrian exposure in this crash analysis. Pedestrian traffic counts in the Central Business District (CBD) were provided by CDOT and public transit passenger volumes were provided by the Chicago Transit Authority (CTA). These data offered measures of pedestrian traffic and were used as comparisons to the number of crashes occurring.

US Census data also were used to determine pedestrian exposure. Data from the 2005-2009 ACS provided information about how Chicago residents travel to work. The number of people walking or taking transit to work was used as a measure of pedestrian exposure.

#### 2.3 Correlations

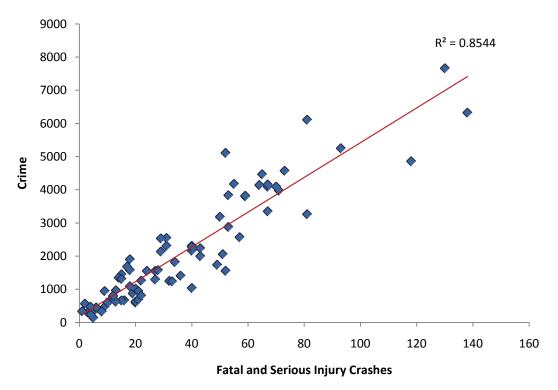
Several sources of data were used to determine if pedestrian crashes correlate to various socioeconomic and environmental characteristics.

Using the 2005-2009 ACS data, correlations were analyzed for income, race, and language spoken at home. A correlation between pedestrian crashes and the walkability of a neighborhood was investigated using the neighborhoods' Walk Scores®. Walk Score® ranks an area on a scale of 0 to 100 based on the proximity of residents to destinations such as grocery stores, schools, restaurants, transit, and other daily needs.

Finally, crime statistics were compared to pedestrian crashes to determine if a correlation could be identified, using data from the Chicago Police Department (CPD) annual reports for 2005 through 2009. The annual reports include incidences of crime by Chicago Community Area (CCA). The statistics for the years 2005 through 2009 were averaged and compared to the average number of fatal and serious injury pedestrian crashes over the same time period in each CCA.

Of these factors, crime was the only variable that correlated to pedestrian crashes. **Figure 1** shows the correlation between crime and pedestrian crashes was very high. However, there may be many variables responsible for this correlation.

Figure 1: Crime vs. Fatal and Serious Injury Pedestrian Crashes by Chicago Community Area



# II Crash Analysis

A comprehensive crash analysis is the first step in developing countermeasures for pedestrian safety, to understand who is involved in crashes, when and where they are occurring and the associated causes.

First, to provide a basic understanding of the state of pedestrian crashes in Chicago, **Section 3** presents the overall pedestrian crash statistics from 2005 through 2009. It also puts the crashes into context by comparing pedestrian crashes in Chicago to similar US cities.

The remainder of this report presents an in-depth analysis of the pedestrian crashes in Chicago between 2005 and 2009 by category: Demographic, Temporal, Geographic, Environmental, and Behavioral.

**Section 4** presents the demographic analysis of the crash data and includes statistics on the age and gender of pedestrians and motorists as well as the race of pedestrians involved in crashes. **Section 5** is the temporal analysis and presents information on when the crashes occurred. **Section 6** provides a thorough analysis of the geographic distribution of crashes. In this section, crashes were analyzed at the neighborhood level, corridor level, and at spot locations, including intersections, transit stations, and schools.

**Section 7** is the environmental analysis, which includes statistics on the light and weather conditions at the time of the crashes. It also includes statistics regarding the roadway conditions, such as the number of travel lanes or type of intersection where crashes occurred. In this analysis, the roadway conditions were considered as part of the pedestrian environment. **Section 8** presents the behavioral analysis. This includes information about what the motorist or pedestrian was doing at the time of the crash. For example, whether the motorist was turning or driving straight and whether the pedestrian was using a crosswalk or not.

Additional analyses were conducted at select locations of high crashes and of particular types of crashes to understand them in greater detail. These are included in Sections 7 and 8.

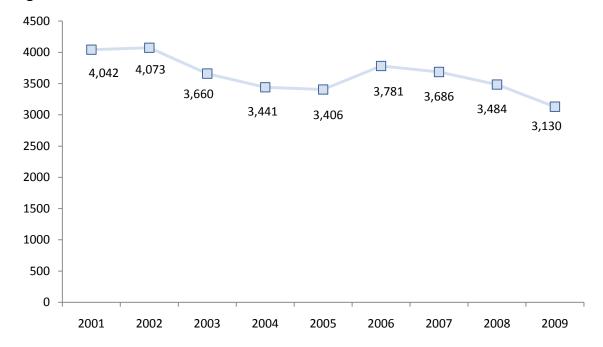
#### 3 OVERALL CRASH STATISTICS

#### 3.1 All Pedestrian Crashes

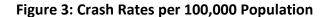
Between 2005 and 2009, 17,487 pedestrian crashes occurred and 18,377 pedestrians were involved in those crashes. This is a slight decrease from the 2001-2005 period, during which 18,689 crashes occurred involving 19,600 pedestrians.

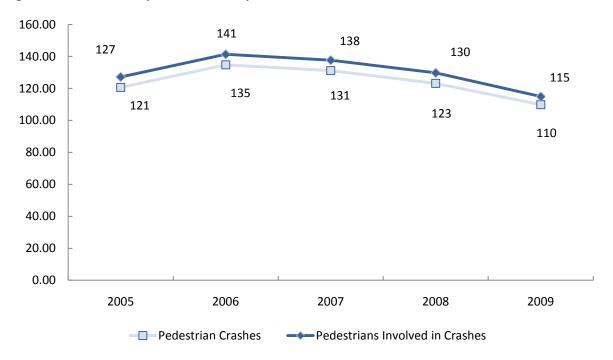
On average, 3,497 pedestrian crashes occurred, involving 3,675 pedestrians, each year between 2005 and 2009. Of this five-year period, the most pedestrian crashes occurred in 2006, while 2009 had the least. **Figure 2** shows the total pedestrian crashes each year from 2001 to 2009. The number of crashes trended downward over the entire time period with an increase from 2005 to 2006. The number of pedestrians involved followed a similar downward trend. The number of pedestrians involved in crashes reached a high of 3,967 in 2006 and dropped to a low of 3,277 in 2009.

**Figure 2: Total Pedestrian Crashes** 



**Figure 3** shows the number of crashes and the number of pedestrians involved in crashes with respect to the population of Chicago for each year. Using estimates from the US Census Bureau<sup>1</sup> and accounting for population, the rate of pedestrian crashes was the lowest in 2009 at 110 per 100,000 population. It was the highest in 2006 at 135. The 2001-2005 Study reported a crash rate of 140 in 2001 and 122 in 2005, but did not report the rates for the intermediate years.





<sup>&</sup>lt;sup>1</sup> US Census Bureau, Population Estimates, Incorporated Places and Minor Civil Divisions, Places over 100,000: 2000 to 2009, http://www.census.gov/popest/cities/SUB-EST2009.html.

## 3.2 Pedestrian Injury Severity

An injury code is assigned to each individual involved in a crash to define the severity of the injury sustained, if any. The codes and definitions are provided in the *Illinois Traffic Crash Report SR 1050: Instruction Manual for Law Enforcement Agencies* and are presented below. The entire instruction manual is provided in **Appendix B**. This analysis looks closely at the K and A crashes to learn details of those most serious crashes.

Inj	ury Type	Definition
K	Fatal	A crash in which at least one person dies within 30 days of the crash.
А	Incapacitating Injury (Serious)	Any injury that prevents the person from walking, driving, or normally continuing the activities he/she was capable of prior to the injury. Includes severe lacerations, broken/distorted limbs, skull injuries, chest injuries, and abdominal injuries.
В	Non-incapacitating Injury	Any injury that is evident to observers at the scene of the crash. Includes lumps on the head, abrasions, bruises, and minor lacerations.
С	Reported, Not Evident	Any injury reported or claimed, which is not listed above. Includes momentary unconsciousness, claims of injuries not evident, limping, complaints of pain, nausea, hysteria.
0	None	No indication of injury.

Source: Illinois Traffic Crash Report SR 1050, 2009

**Table 1** on the next page presents the number of pedestrian injuries by injury type. The portion of fatalities ranged from a high of 1.8% in 2005 of all pedestrians involved in crashes to a low of 1.0% in 2009, with an average of 1.4%. This is lower than the 1.8% average for 2001 through 2005. Together, fatal and serious injury crashes accounted for 16.3% of all crashes. Throughout this report, the rate of fatal and serious injury crashes to all pedestrian crashes will be presented for specific areas examined. The citywide rate of 16.3% will be referred to as comparison.

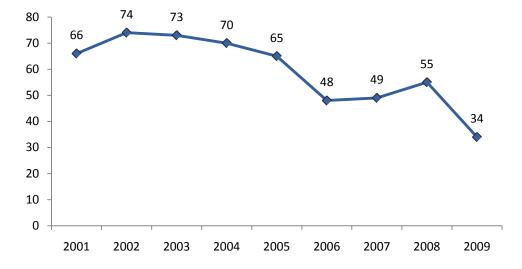
An average of 1.9% of pedestrians was reported as having no injuries. It is notable that the number of "no injury" crashes spiked in 2008 to 236 pedestrians, or 6.4%. The next highest reported year of no injuries was 2005 at 53.

Table 1: Pedestrian Injury Severity by Year

	2005	2006	2007	2008	2009	Total
Fatality	65	48	49	55	34	251
	1.8%	1.2%	1.3%	1.5%	1.0%	1.4%
A Injury	630	620	533	458	503	2,744
	17.5%	15.6%	13.8%	12.5%	15.3%	14.9%
B Injury	1,865	1,960	1,926	1,666	1,456	8,873
	51.9%	49.4%	49.8%	45.4%	44.4%	48.3%
C Injury	979	1,320	1,355	1,255	1,250	6,159
	27.3%	33.3%	35.0%	34.2%	38.1%	33.5%
No Injury	53	19	7	236	34	349
	1.5%	0.5%	0.2%	6.4%	1.0%	1.9%
Total	3,592	3,967	3,870	3,670	3,277	18,376
(Year %)	(19.5%)	(21.6%)	(21.1%)	(20.0%)	(17.8%)	100.0%

There appears to be a general downward trend in the number of fatal and serious injury crashes over this period. The citywide pedestrian fatality rate dropped from a high of 2.5 per 100,000 population in 2005 to a low of 1.2 in 2009. This represents a large decline in the fatality rate. When comparing these figures to the data from 2001 through 2004 for fatal crashes alone, the trend appeared to continue over the longer term, reaching an overall low in 2009. **Figure 4** shows the number of pedestrian crashes that resulted in fatalities from 2001 through 2009.

**Figure 4: Pedestrian Fatalities** 



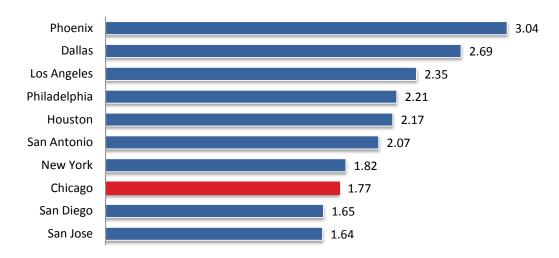
**Figure 5** shows the number of crashes that resulted in serious injury for a pedestrian from 2001 through 2009. This indicates a downward trend from 2004 through 2009 after a sharp decline from the 2001 to 2003 time period. As noted in the 2001-2005 Study, this decline may be a result of changes in the crash report that were instituted in 2004. A new reporting system was implemented that changed the coding of several fields.

**Figure 5: Pedestrian Serious Injuries** 

#### 3.3 City Comparisons

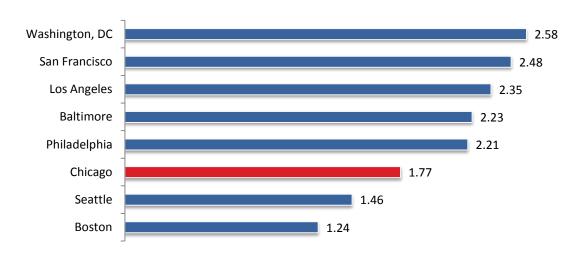
To gain perspective on the magnitude of pedestrian fatalities in Chicago, the fatality rates of other US cities with high populations and similar population densities were compared. **Figure 6** on the next page shows the fatality rates per 100,000 population of Chicago and the top ten cities in the US, by population. Of these cities, only San Diego and San Jose have fatality rates lower than Chicago.

Figure 6: Pedestrian Fatalities per 100,000 Population (2005-2009) of Top Ten Cities by Population<sup>2</sup>



Many of the top ten cities by population have much different population densities than Chicago and likely have lower volumes of pedestrian activity. Thus, in order to compare Chicago to more similar cities, pedestrian fatalities by population were compared among cities with similar population densities and similar rates of population who walk or take transit to work. **Figure 7** shows cities with a population density between 7,000 and 17,000 people per square mile. Chicago's density was 12,750 according to the US Census. These cities also have similar rates of population who walk or take transit to work.<sup>3</sup>

Figure 7: Pedestrian Fatalities per 100,000 Population (2005-2009) of Cities with Similar Population Densities

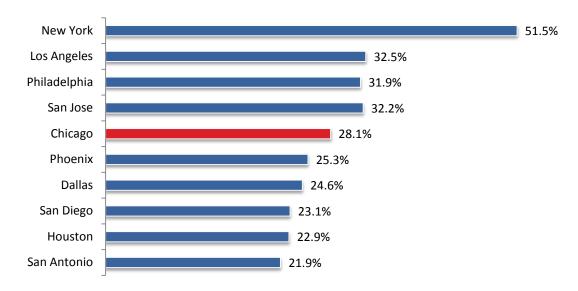


<sup>&</sup>lt;sup>2</sup> Data sources: National Highway Traffic Safety Administration, US Census Bureau

<sup>&</sup>lt;sup>3</sup> http://www.telestrian.com, Telestrian, LLC, accessed on April 5, 2011.

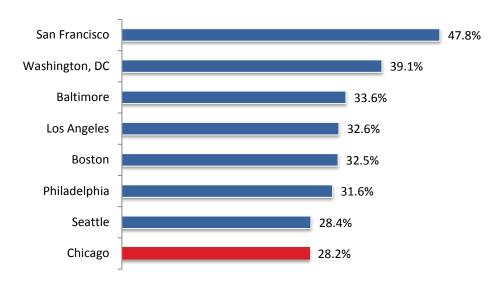
**Figure 8** compares the percentage of all traffic fatalities that are pedestrians per city for the top ten cities in the US by population. These data show that Chicago is in the middle of the group.

Figure 8: Proportion of Pedestrian Fatalities to All Traffic Fatalities (2005-2009) in Top Ten Cities by Population



**Figure 9** compares the percentage of all traffic fatalities that are pedestrians for cities with similar population densities. These data show that Chicago has a lower percentage of traffic fatalities that are pedestrians than all of the comparable cities.

Figure 9: Proportion of Pedestrian Fatalities to All Traffic Fatalities (2005-2009) in Cities with Similar Population Densities



It can be concluded from this that, relatively speaking, Chicago has a safe pedestrian environment given the volume of traffic.

#### 4 DEMOGRAPHIC

A demographic analysis was conducted to better understand who was involved in pedestrian crashes, both as pedestrians and as motorists. The age, gender and race of pedestrians and motorists involved in all crashes and fatal and serious injury crashes were considered. These were compared to the 2001-2005 Study and trends were identified, where applicable.

#### 4.1 Pedestrian Age Group

Pedestrian crashes were broken down by age groups to determine if certain groups are overrepresented in crashes or certain types of crashes. This breakdown aligns with groups that could be targeted for focused education, enforcement or related activities. The age groups considered are as follows:

0-4: Pre-school aged youth

5-14: Primary school aged youth

15-18: High school aged youth

19-29: Adults

30-59: Adults

60-64: Adults

65+: Seniors

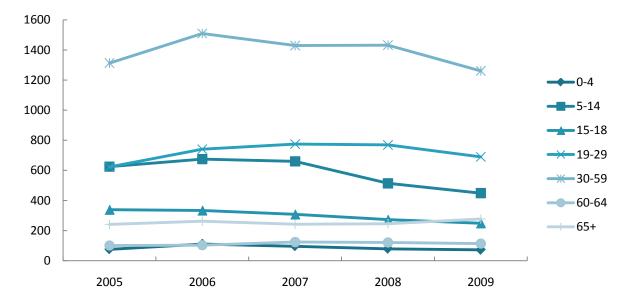
**Table 2** shows the number of pedestrians involved in crashes for each age group and **Figure 10** presents a graph of these data, showing the trend over time.

Table 2: Age of Pedestrian Involved in Crashes by Year

	2005	2006	2007	2008	2009	Total
0-4	76	111	96	79	72	434
	2.1%	2.8%	2.5%	2.2%	2.2%	2.4%
5-14	625	675	660	514	449	2,923
	17.4%	17.0%	17.1%	14.0%	13.7%	15.9%
15-18	339	334	308	273	249	1,503
	9.4%	8.4%	8.0%	7.4%	7.6%	8.2%
19-29	623	741	775	769	690	3,598
	17.3%	18.7%	20.0%	21.0%	21.1%	19.6%
30-59	1,313	1,509	1,429	1,432	1,261	6,944
	36.6%	38.0%	36.9%	39.0%	38.5%	37.8%
60-64	101	103	124	121	114	563
	2.8%	2.6%	3.2%	3.3%	3.5%	3.1%
65+	241	263	242	246	277	1,269
	6.7%	6.6%	6.3%	6.7%	8.5%	6.9%
Unknown	274	231	236	236	165	1,142
	7.6%	5.8%	6.1%	6.4%	5.0%	6.2%
Total	3,592	3,967	3,870	3,670	3,277	18,376
(Year %)	(19.5%)	(21.6%)	(21.1%)	(20.0%)	(17.8%)	100.0%

These data show a declining trend in the number of pedestrian crashes in the 5-14 age group and the 15-18 age group over the five-year period. The number of crashes involving other age groups appears relatively constant over this period.

Figure 10: Age of Pedestrian Involved in Crashes

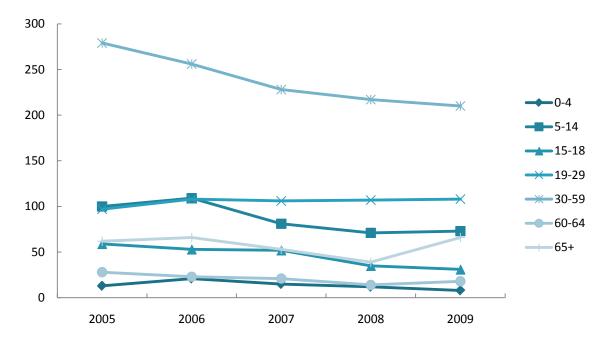


A pronounced decline in fatal and serious injury crashes is evident among the 30-59 age group over the time period. Among the age groups 5-14 and 15-18, declines similar to those observed with overall crashes are evident. The 65+ age group shows a gradual decrease in fatal and serious injury crashes through 2008, followed by an uptick in 2009. These results are presented in **Table 3** and displayed in **Figure 11**.

Table 3: Fatal and Serious Injury Pedestrian Crashes by Age Group

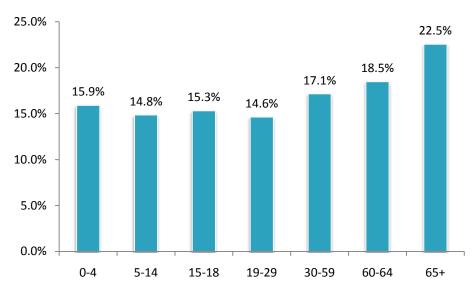
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Figure 11: Fatal and Serious Injury Pedestrian Crashes by Age Group



Of note is the percentage of fatal and serious injury crashes involving seniors. Between 2005 and 2009, seniors were involved in 9.5% of the fatal and serious injury crashes but only 6.2% of overall crashes. Of the 1,269 crashes involving seniors, 49 (4.0%) resulted in fatalities and 231 (18.2%) in serious injuries. For comparison, the percentages of fatalities and serious injuries for all age groups combined were 1.4% and 14.9%, respectively. **Figure 12** shows the percentage of fatal and serious injury to all pedestrian crashes by age group. The rates increase from age 30 up.

Figure 12: Fatal and Serious Injury Pedestrian Crashes as Percentage of All Pedestrian Crashes (2005-2009) by Age Group



The higher proportion of fatal and serious injury crashes among seniors was likely related to their higher physical fragility relative to the overall population. Older pedestrians have a much greater risk of dying than younger pedestrians in a crash of similar severity. Studies have found that a 79-year old man is 3.2 times as likely to die as a 32-year old man in a crash of the same severity. A similar relationship holds among females<sup>4,5</sup>.

<sup>&</sup>lt;sup>4</sup> Henary B, Ivarsson J, Crandall JR. "The Influence of Age on the Morbidity and Mortality of Pedestrian Victims." Traffic Injury Prevention, 2006, 7(2): 182-190.

<sup>&</sup>lt;sup>5</sup> Evans, Leonard, "Traffic Safety," Bloomfield Hills, MI: Science Serving Society, 2004. ISBN 0975487108.

When accounting for the population of each age group in Chicago, the 15-18 age group had a significantly higher crash rate than the remaining age groups at 194.6 per 100,000 population. This was followed by the 5-14 age group at 137.5. The lowest crash rate was among the 0-4 age group with 40.0 and the second to lowest was among seniors (65+) at 84.8. The crash rates for age groups 19-29, 30-59, and 60-64 decreased steadily from 127.7 to 114.2. The peak of fatal and serious injury crashes also occurred among the 15-18 age group. **Figure 13** shows these results.

250.0 194.6 200.0 137.5 150.0 127.7 122.0 114.2 All Crashes 84.8 K&A Crashes 100.0 40.0 50.0 29.8 20.9 21.1 20.4 19.1 18.7 6.4 0.0 0-4 5-14 15-18 19-29 30-59 60-64 65+

Figure 13: Pedestrian Crash Rate per 100,000 Population (2005-2009) by Age Group

#### 4.2 Motorist Age Group

Crashes also were broken down by driver age group to better understand driver involvement. The motorist age groups considered are as follows:

16-18: Newly licensed drivers (some on graduated license)

19-24: Young drivers

25-44: Young middle age drivers

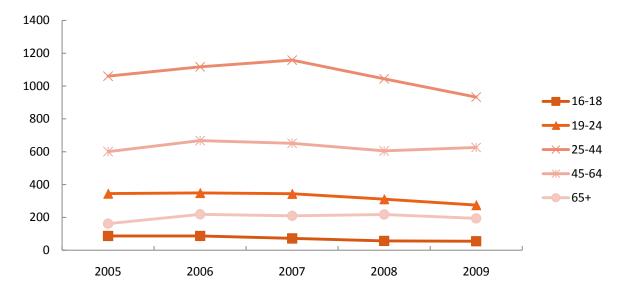
45-64: Older middle age drivers

65+: Senior drivers

**Figure 14** shows the total number of pedestrian crashes involving motorists in each age group. Information on the number of licensed drivers living in Chicago was not available to provide comparisons. It is difficult to draw clear conclusions about relative driver involvement in pedestrian crashes by age group without having access to exposure data for the amount of driving

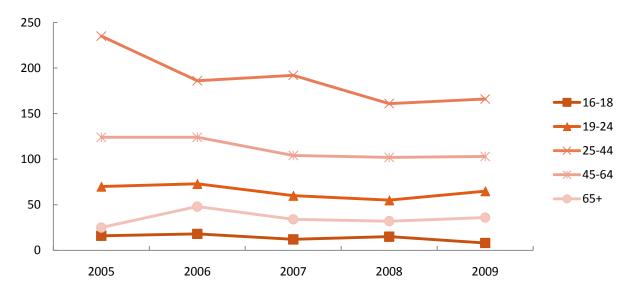
by each group. However, these data show that the 25-44 age group was involved in more crashes than the 45-64 age group.

Figure 14: Age of Motorist Involved in Pedestrian Crashes



**Figure 15** shows the motorist involvement, by age group, in fatal and serious injury pedestrian crashes by year. These data show a marked decline in the 25-44 year age group over the 5-year period.

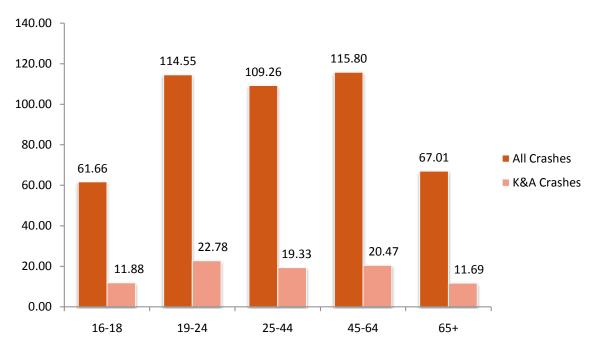
Figure 15: Age of Motorist Involved in Fatal and Serious Injury Pedestrian Crashes by Year



When factoring for the population in each age group, the 19-24, 25-44, and 45-64 age groups have similar pedestrian crash rates in both overall and fatal and serious injury crashes. **Figure 16** shows motorist age group crash rates by population within Chicago. The 19-24 age group has the highest rate for fatal and serious injury pedestrian crashes of all age groups. The low

rate for the 16-18 and 65+ age groups is likely related to lower driving rates. Other factors that may be responsible for the lower proportion in the 16-18 group are that many drivers in this age group have probationary licenses which restrict driving conditions and the lower income coupled with the higher insurance rates for this age group make it more costly to own and operate a car. In the case of senior drivers (65+) there is evidence that they drive less overall, and particularly during hours of high traffic volumes when crashes are more likely to occur.

Figure 16: Rates of Motorists Involved in Pedestrian Crashes per 100,000 Population (2005-2009) by Age Group



The crashes involving younger motorists were more likely to result in fatalities and serious injuries. The rates of fatal and serious injury crashes to all crashes were highest among the 16-18 and 19-24 age groups at 19.3% and 19.9%, respectively. The same rate for motorists aged 25 through 64 was 17.7% and the 65+ age group was 17.4%.

#### 4.3 Pedestrian Gender

Male pedestrians were involved in more crashes and more fatal and serious injury crashes than females, despite accounting for less of the population as a whole. Over the five-year period, 52% of the pedestrians involved in crashes were male, despite making up only 48% of the population of Chicago. Of the fatal and serious injuries, 54% were male. However, a higher proportion of crashes involved females in Chicago, at 45%, than nationally, where roughly 31% of the pedestrians involved in crashes are female. The Chicago data is displayed in **Table 4.** 

Table 4: Gender of Pedestrians Involved in Crashes

	2005	2006	2007	2008	2009	Total			
All Crashes									
Male	1,735	2,163	2,042	1,957	1,724	9,621			
	48.3%	54.5%	52.8%	53.3%	52.6%	52.4%			
Female	1,459	1,792	1,800	1,690	1,542	8,283			
	40.6%	45.2%	46.5%	46.0%	47.1%	45.1%			
Unknown	398	12	28	23	11	472			
	11.1%	0.3%	0.7%	0.6%	0.3%	2.6%			
Total	3,592	3,967	3,870	3,670	3,277	18,376			
(Year %)	(19.5%)	(21.6%)	(21.1%)	(20.0%)	(17.8%)	100.0%			
Fatal and Se	erious Injur	y Crashes							
Male	354	381	312	297	296	1,640			
	50.9%	57.0%	53.6%	57.9%	55.1%	54.8%			
Female	263	287	269	216	241	1,276			
	37.8%	43.0%	46.2%	42.1%	44.9%	42.6%			
Unknown	78	0	1	0	0	79			
	11.2%	0.0%	0.2%	0.0%	0.0%	2.6%			
Total	695	668	582	513	537	2,995			
(Year %)	(23.2%)	(22.3%)	(19.4%)	(17.1%)	(17.9%)	100.0%			

The 2001-2005 Study found that the proportion of crashes involving males had decreased over the five-year period. This trend has continued through 2009. The data presented here includes all pedestrians involved in crashes, whereas the data from the 2001-2005 Study includes only crashes that were coded as pedestrian crashes. Thus, the previous study only includes the pedestrians who were first struck by an automobile. For this reason, the results vary slightly for 2005 and are not directly comparable. However, the trend remained consistent.

<sup>&</sup>lt;sup>6</sup> National Highway Traffic Safety Administration, "National Pedestrian Crash Report," US Department of Transportation, June 2008.

Both data sets show that gender was recorded as unknown or not recorded in roughly 11% of the crashes in 2005. In all other years, the percentage of unknown crashes was extremely low or negligible. **Figure 17** shows this data graphically.

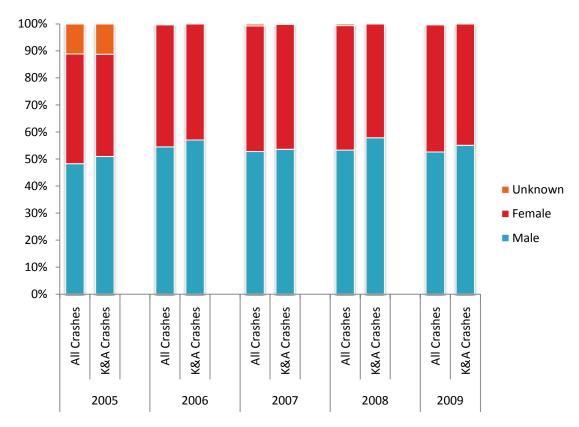


Figure 17: Gender of Pedestrians Involved in Crashes

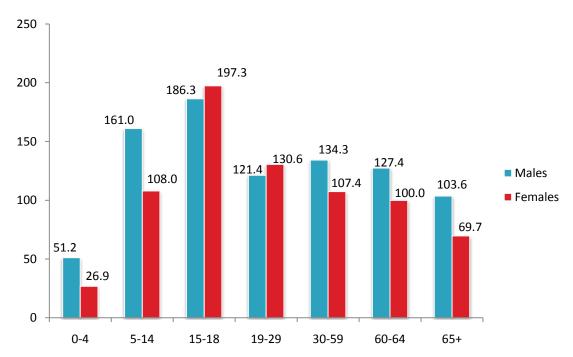
Looking at pedestrian gender in greater detail reveals that females were involved in more crashes than males in the 15-18, 19-29, and 65+ age groups (see **Table 5**). These data differ from findings in the NYC Study, where males were more involved in serious and fatal pedestrian crashes than females for all age groups.

**Table 5: Pedestrian Gender by Age Group** 

0-4	5-14	15-18	19-29	30-59	60-64	65+	Un- known	Total
285	1,743	729	1,700	3,743	279	605	532	9,616
65.7%	59.6%	48.5%	47.2%	53.9%	49.6%	47.8%	46.8%	52.4%
142	1,126	752	1,849	3,118	274	636	380	8,277
32.7%	38.5%	50.0%	51.4%	44.9%	48.7%	50.3%	33.5%	45.1%
7	54	22	49	83	10	24	224	473
1.6%	1.8%	1.5%	1.4%	1.2%	1.8%	1.9%	19.7%	2.6%
434	2,923	1,503	3,598	6,944	563	1,265	1,136	18,366
	285 65.7% 142 32.7% 7 1.6%	285 1,743 65.7% 59.6% 142 1,126 32.7% 38.5% 7 54 1.6% 1.8%	285     1,743     729       65.7%     59.6%     48.5%       142     1,126     752       32.7%     38.5%     50.0%       7     54     22       1.6%     1.8%     1.5%	285       1,743       729       1,700         65.7%       59.6%       48.5%       47.2%         142       1,126       752       1,849         32.7%       38.5%       50.0%       51.4%         7       54       22       49         1.6%       1.8%       1.5%       1.4%	285       1,743       729       1,700       3,743         65.7%       59.6%       48.5%       47.2%       53.9%         142       1,126       752       1,849       3,118         32.7%       38.5%       50.0%       51.4%       44.9%         7       54       22       49       83         1.6%       1.8%       1.5%       1.4%       1.2%	285       1,743       729       1,700       3,743       279         65.7%       59.6%       48.5%       47.2%       53.9%       49.6%         142       1,126       752       1,849       3,118       274         32.7%       38.5%       50.0%       51.4%       44.9%       48.7%         7       54       22       49       83       10         1.6%       1.8%       1.5%       1.4%       1.2%       1.8%	285       1,743       729       1,700       3,743       279       605         65.7%       59.6%       48.5%       47.2%       53.9%       49.6%       47.8%         142       1,126       752       1,849       3,118       274       636         32.7%       38.5%       50.0%       51.4%       44.9%       48.7%       50.3%         7       54       22       49       83       10       24         1.6%       1.8%       1.5%       1.4%       1.2%       1.8%       1.9%	0-4         5-14         15-18         19-29         30-59         60-64         65+         known           285         1,743         729         1,700         3,743         279         605         532           65.7%         59.6%         48.5%         47.2%         53.9%         49.6%         47.8%         46.8%           142         1,126         752         1,849         3,118         274         636         380           32.7%         38.5%         50.0%         51.4%         44.9%         48.7%         50.3%         33.5%           7         54         22         49         83         10         24         224           1.6%         1.8%         1.5%         1.4%         1.2%         1.8%         1.9%         19.7%

**Figure 18** shows these data normalized for population by gender in each age group. Even when accounting for the breakdown in population, female involvement in crashes surpassed male involvement in crashes in the 15-18 and 19-29 age groups. It is also evident from this graph that the biggest discrepancy between genders occurred in the 5-14 age group.

Figure 18: Pedestrian Crash Rate per 100,000 Population (2005-2009) by Gender and Age Group



#### 4.4 Motorist Gender

Similar to the results for pedestrian gender, male drivers were more likely to be involved in pedestrian crashes than female drivers. Considering all pedestrian crashes, 46% of drivers were male, 26% were female, and 28% were unknown. Focusing on fatal and serious injury crashes only, 48% of drivers were male, 27% were female, and 25% were unknown. The ratios remained fairly consistent throughout the five-year period. These data are shown in **Table 6**.

**Table 6: Gender of Motorists Involved in Pedestrian Crashes** 

	2005	2006	2007	2008	2009	Total	
All Crashes							
Male	1,531	1,769	1,728	1,564	1,458	8,050	
	44.6%	46.6%	46.8%	44.6%	46.4%	45.8%	
Female	860	980	957	911	835	4,543	
	25.0%	25.8%	25.9%	26.0%	26.6%	25.8%	
Unknown	1,044	1,050	1,011	1,031	852	4,988	
	30.4%	27.6%	27.4%	29.4%	27.1%	28.4%	
Total	3,435	3,799	3,696	3,506	3,145	17,581	
(Year %)	(19.5%)	(21.6%)	(21.0%)	(19.9%)	(17.9%)	100.0%	
Fatal and Serious Injury Crashes							
Male	328	289	281	256	266	1,420	
	48.4%	43.9%	49.2%	50.7%	50.7%	48.3%	
Female	165	192	152	136	142	787	
	24.3%	29.1%	26.6%	26.9%	27.0%	26.8%	
Unknown	185	178	138	113	117	731	
	27.3%	27.0%	24.2%	22.4%	22.3%	24.9%	
Total	678	659	571	505	525	2,938	
(Year %)	(23.1%)	(22.4%)	(19.4%)	(17.2%)	(17.9%)	100.0%	

Among the known cases, males are involved in 63.9% of the crashes and females 36.1%. This is similar to what was found in the 2001-2005 Study, in which 65.6% of the crashes involved male drivers.

Again, the difference between male and female driver involvement is less in Chicago than nationally. However, national statistics report fewer in the "unknown" category. Nationally, 65% of drivers involved in fatal pedestrian crashes were male, 25% were female, and 10% were unknown (as compared to 25% in Chicago.)<sup>7</sup>

Among drivers, the unknown gender was likely due to hit and run crashes. An average of 33% of pedestrian crashes were hit and runs over this five-year period. While this is higher than the percentage of "unknown" driver genders, some hit and run driver genders are presumably recorded through witness accounts of the crash or because the driver is eventually found. Hit and run crashes are examined in more detail in **Section 8.1**.

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<sup>&</sup>lt;sup>7</sup> National Highway Traffic Safety Administration, "National Pedestrian Crash Report," US Department of Transportation, June 2008.

#### 4.5 Pedestrian Race and Ethnicity

The *Illinois Traffic Crash Report SR 1050* does not include fields to report information on the race of people involved in crashes. Therefore, information on race and ethnicity was collected for fatal crashes only from FARS, which is a national database of traffic-related fatalities. FARS is maintained by NHTSA. FARS data include information obtained from death certificates of those involved in crashes. **Table 7** shows these results along with the breakdown by race and Hispanic origin of the population of Chicago, for comparison. These data include an anomaly of pedestrians of unknown race in 2008, at almost 93% of the fatalities. Thus, the overall breakdown may be biased due to the large number of unknowns in 2008.

Please note that the category Hispanic includes all people who identified as Hispanic, regardless of race, i.e. a pedestrian who identified as white and Hispanic is included in the total count under Hispanic and not under white. In 2009, for instance, 18 of the pedestrian fatalities were white. However, 7 of those identified as Hispanic. An additional 2 pedestrian fatalities were of Hispanic origin that year.

Table 7: Pedestrian Fatalities by Race and Ethnicity

	2005	2006	2007	2008	2009	Total	% of Chicago Population <sup>8</sup>
White Alone, Not Hispanic	19	23	7	2	11	62	22 50/
or Latino	28.8%	47.9%	14.0%	3.6%	32.4%	24.4%	32.5%
Black or Afri- can American	25	15	21	1	10	72	33.8%
Alone	37.9%	31.3%	42.0%	1.8%	29.4%	28.3%	33.070
Hispanic or	16	8	15	0	9	48	
Latino	24.2%	16.7%	30.0%	0.0%	26.5%	18.9%	27.4%
Asian Alone	2	2	1	1	2	8	
	3.0%	4.2%	2.0%	1.8%	5.9%	3.1%	4.9%
Unknown	4	0	6	52	2	64	
	6.1%	0.0%	12.0%	92.9%	5.9%	25.2%	NA
Total	66	48	50	56	34	254	

Excluding the values for 2008, the race breakdown changes slightly. People who identified as white accounted for 30.3%, blacks accounted for 35.9%, Hispanics accounted for 24.2%, and Asians accounted for 3.2% of pedestrian fatalities. This indicates that only Blacks were overrepresented in fatal crashes, compared to their population proportion.

No trends in increasing or decreasing pedestrian fatalities are evident among these data.

<sup>&</sup>lt;sup>8</sup> US Census, 2005-2009 American Community Survey

#### 5 TEMPORAL

Descriptive analyses were performed to understand when the pedestrian crashes occurred. These analyses included crashes per month, day, and hour and compared overall crashes to fatal and serious injury crashes. The results were also compared to the 2001-2005 Study.

#### 5.1 Month

The pedestrian crash distribution by month is presented in **Figure 19** and **Table 8** on the next page. These data show a relatively flat distribution with the lowest number of crashes occurring in February, when the average over the five years was 251 pedestrian crashes and the highest number of crashes occurring in June, with an average of 324. The 2001-2005 Study also showed February having the lowest number of crashes and showed June and July as the highest crash months.

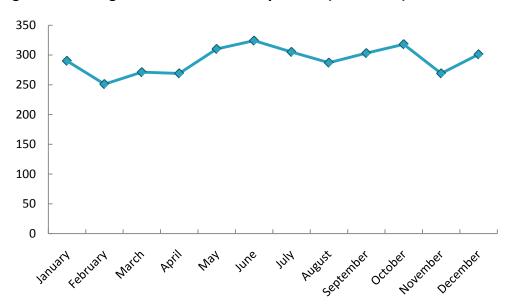


Figure 19: Average Pedestrian Crashes by Month (2005-2009)

**Table 8: Pedestrian Crashes by Month** 

	2005	2006	2007	2008	2009	Total
January	244	268	331	365	242	1,450
	7.2%	7.9%	9.7%	10.7%	7.1%	8.3%
February	219	240	242	276	278	1,255
	6.4%	6.3%	6.6%	7.9%	8.9%	7.2%
March	246	301	302	264	240	1,353
	7.2%	8.0%	8.2%	7.6%	7.7%	7.7%
April	254	304	255	282	252	1,347
	7.5%	8.0%	6.9%	8.1%	8.1%	7.7%
May	263	362	321	312	294	1,552
	7.7%	9.6%	8.7%	9.0%	9.4%	8.9%
June	314	343	359	322	281	1,619
	9.2%	9.1%	9.7%	9.2%	9.0%	9.3%
July	276	352	324	307	266	1,525
-	8.1%	9.3%	8.8%	8.8%	8.5%	8.7%
August	287	317	310	266	253	1,433
-	8.4%	8.4%	8.4%	7.6%	8.1%	8.2%
September	339	319	320	291	248	1,517
-	10.0%	8.4%	8.7%	8.4%	7.9%	8.7%
October	323	375	329	282	280	1,589
	9.5%	9.9%	8.9%	8.1%	8.9%	9.1%
November	281	301	285	245	232	1,344
	8.3%	8.0%	7.7%	7.0%	7.4%	7.7%
December	360	299	308	272	264	1,503
	10.6%	7.9%	8.4%	7.8%	8.4%	8.6%
Total	3,406	3,781	3,686	3,484	3,130	17,487
(Year %)	(19.5%)	(21.6%)	(21.1%)	(19.9%)	(17.9%)	100.0%

The data for fatal and serious injury crashes by month (see **Table 9**) shows an even flatter distribution than the overall crashes. Here, the high month was May and the low month was March.

Table 9: Fatal (K) and Serious Injury (A) Crashes by Month

	2005	2006	2007	2008	2009	Total
January	37	54	47	48	43	229
	5.5%	8.0%	7.0%	7.2%	6.4%	7.9%
February	51	43	45	41	50	230
	7.6%	6.6%	8.0%	8.3%	9.7%	7.9%
March	45	52	43	49	38	227
	6.7%	8.0%	7.6%	9.9%	7.4%	7.8%
April	56	55	37	57	45	250
	8.3%	8.4%	6.5%	11.5%	8.7%	8.6%
May	53	68	54	37	48	260
	7.9%	10.4%	9.6%	7.5%	9.3%	9.0%
June	49	57	52	49	51	258
	7.3%	8.7%	9.2%	9.9%	9.9%	8.9%
July	63	58	49	36	48	254
	9.4%	8.9%	8.7%	7.3%	9.3%	8.8%
August	59	49	47	43	34	232
	8.8%	7.5%	8.3%	8.7%	6.6%	8.0%
September	55	59	51	33	40	238
	8.2%	9.0%	9.0%	6.7%	7.8%	8.2%
October	62	68	53	33	43	259
	9.2%	10.4%	9.4%	6.7%	8.3%	8.9%
November	65	49	38	40	39	231
	9.7%	7.5%	6.7%	8.1%	7.6%	8.0%
December	76	41	49	30	37	233
	11.3%	6.3%	8.7%	6.0%	7.2%	8.0%
Total	671	653	565	496	516	2,901
(Year %)	(23.1%)	(22.5%)	(19.5%)	(17.1%)	(17.8%)	100.0%

# 5.2 Day of Week

The distribution of crashes over the days of the week shows a drop in crashes for Friday and Saturday (**Figure 20**, **Table 10**). From 2005 through 2009, Thursday saw the most crashes of the week. This is a significant difference from the 2001-2005 study that found Friday to have the most pedestrian crashes.

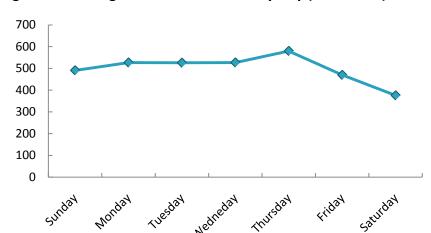


Figure 20: Average Pedestrian Crashes by Day (2005-2009)

**Table 10: Pedestrian Crashes by Day** 

	2005	2006	2007	2008	2009	Total
Sunday	504	570	502	476	403	2,455
	14.8%	15.1%	13.6%	13.7%	12.9%	14.0%
Monday	483	555	542	509	547	2,636
	14.2%	14.7%	14.7%	14.6%	17.5%	15.1%
Tuesday	487	556	598	546	444	2,631
	14.3%	14.7%	16.2%	15.7%	14.2%	15.0%
Wednesday	504	526	573	549	484	2,636
	14.8%	13.9%	15.5%	15.8%	15.5%	15.1%
Thursday	588	650	586	584	490	2,898
	17.3%	17.2%	15.9%	16.8%	15.7%	16.6%
Friday	468	507	493	466	415	2,349
	13.7%	13.4%	13.4%	13.4%	13.3%	13.4%
Saturday	372	417	392	354	347	1,882
	10.9%	11.0%	10.6%	10.2%	11.1%	10.8%
Total	3,406	3,781	3,686	3,484	3,130	17,487
(Year %)	(19.5%)	(21.6%)	(21.1%)	(19.9%)	(17.9%)	100.0%

The fatal and serious injury crash data also revealed a spike on Thursdays (see **Figure 21**), however, the decline on Fridays and Saturdays was less pronounced than it was for overall crashes. Friday accounted for 13% of the crashes and Saturday for 10%. This differs from national statistics, which show that 17% and 18% of pedestrian fatalities occur on Fridays and Saturdays, respectively.

120
100
80
60
40
20
Sunday Monday Tuesday Wedneday Thursday Friday Saturday

Figure 21: Average Fatal and Serious Injury Pedestrian Crashes by Day (2005-2009)

# 5.3 Hour

**Figure 22** shows total crashes plotted by time of day. The results closely match the results from the 2001-2005 Study. They also match the results from the NYC Study.

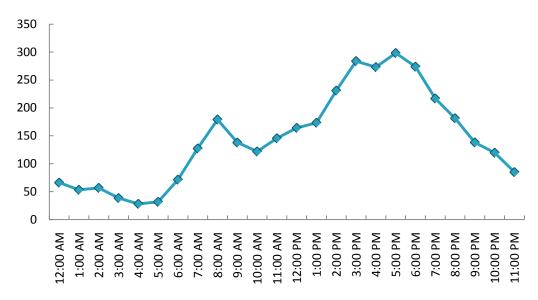


Figure 22: Average Pedestrian Crashes by Hour (2005-2009)

**Figure 23** shows the fatal and serious injury crashes plotted by time of day. The patterns of fatal and serious injury crashes by hour were similar to those of all crashes.

Figure 23: Average Fatal and Serious Injury Pedestrian Crashes by Hour (2005-2009)

## 5.4 Time Periods

**Figure 24** shows the pedestrian crash distribution across time periods for weekdays versus weekends as percentages of crashes during all time periods on those days. Both weekdays and weekends followed a similar pattern, with a peak during the 3:00 p.m. to 6:00 p.m. time period. Weekends experienced a larger percentage of crashes during the midnight to 3:00 a.m. time period than weekdays.

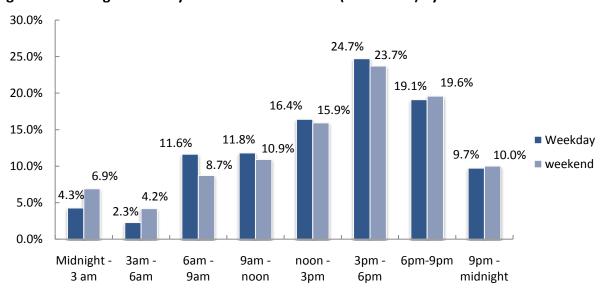
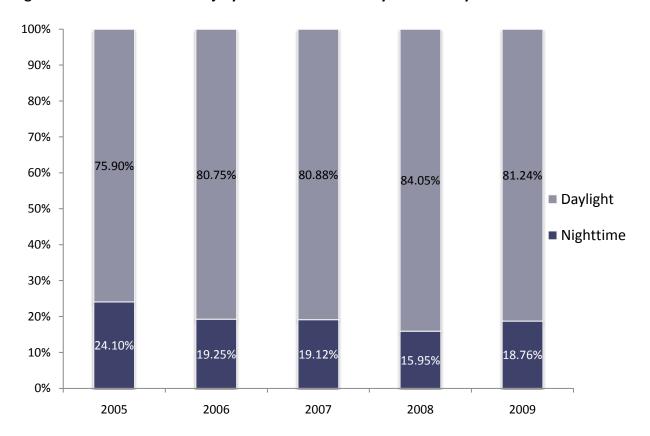


Figure 24: Average Weekday and Weekend Crashes (2005-2009) by Time Period

**Figure 25** shows the proportion of fatal and serious injury crashes that occurred during daylight conditions versus nighttime. Nighttime crashes were considered those coded as "darkness" or "darkness, lighted road" for light condition. These data show that the proportion of nighttime crashes has decreased since 2005. They reached a low in 2008 at roughly 16% of the fatal and serious injury crashes. Crashes increased again in 2009, but remained well below the level in 2005.

Figure 25: Fatal and Serious Injury Pedestrian Crashes by Time of Day



**Table 11** shows the pedestrian crashes for each age group by the time of day. The 3:00 p.m. to 6:00 p.m. time period saw the largest share of crashes for every age group except seniors. However, almost 40% of the crashes among the 5-14 age group occurred during this time period, as compared to roughly 26% overall. These results are very similar to what was found in the 2001-2005 Study.

Seniors were more likely to be struck mid-day, between 9:00 a.m. and 3:00 p.m., than any other age group. This is likely due to higher rates of senior pedestrian activity during these times as compared to other age groups. Their crash involvement significantly dropped off in the night-time and early morning hours.

On the other hand, ten percent of the crashes among 19-29 year olds occurred between midnight and 3:00 a.m. This was double the percentage of crashes for all age groups combined during this time period.

Table 11: Pedestrian Crashes (2005-2009) by Age Group and Time of Day

								Un-	
	0-4	5-14	15-18	19-29	30-59	60-64	65+	known	Overall
	4	26	67	329	367	11	19	58	881
12am-3am	1.1%	1.0%	5.0%	10.1%	5.8%	2.1%	1.6%	5.2%	5.2%
	0	9	20	184	239	10	10	21	493
3am-6am	0.0%	0.3%	1.5%	5.6%	3.8%	1.9%	0.8%	1.9%	2.9%
	13	279	201	325	771	71	127	104	1,891
6am-9am	3.4%	10.3%	14.9%	10.0%	12.1%	13.6%	10.6%	9.4%	11.2%
	34	140	103	372	902	94	274	109	2,028
9am-12pm	9.0%	5.2%	7.6%	11.4%	14.2%	18.0%	22.9%	9.9%	12.0%
	69	391	193	487	1,125	89	304	183	2,841
12pm-3pm	18.3%	14.4%	14.3%	14.9%	17.7%	17.1%	25.4%	16.6%	16.8%
	118	1,069	392	677	1,356	135	263	364	4,374
3pm-6pm	31.3%	39.4%	29.0%	20.7%	21.3%	25.9%	22.0%	32.9%	25.9%
	127	730	287	613	1,152	87	166	197	3,359
6pm-9pm	33.7%	26.9%	21.2%	18.8%	18.1%	16.7%	13.9%	17.8%	19.9%
	12	70	90	277	447	24	35	69	1,024
9pm-12am	3.2%	2.6%	6.7%	8.5%	7.0%	4.6%	2.9%	6.2%	6.1%
Total	377	2,714	1,353	3,264	6,359	521	1,198	1,105	16,891

### **6 GEOGRAPHIC**

Geographic analyses visually display where the crashes occurred. These analyses were conducted on several levels: aldermanic wards, CCAs, corridors, intersections, transit stations, schools and senior resource locations. This section also examines pedestrian exposure in an attempt to identify CCAs, Loop corridors and CTA transit stations where a disproportionate number of pedestrian crashes occurred.

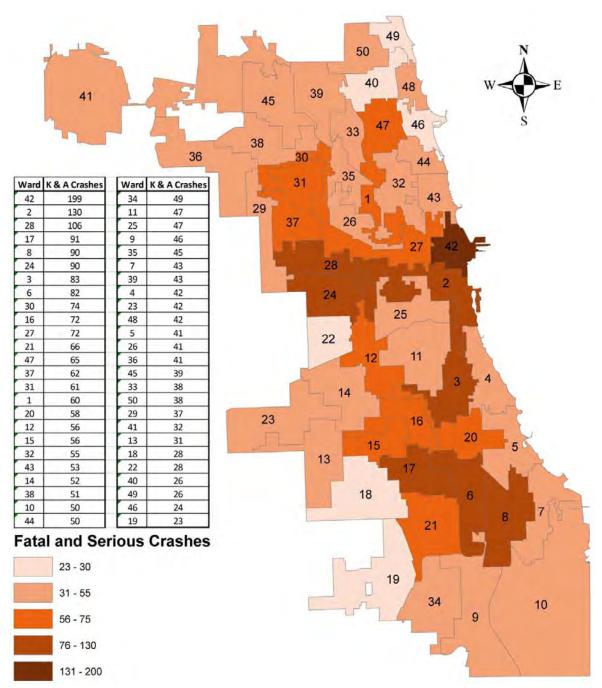
## 6.1 Wards

Chicago's political system is made up of fifty aldermanic wards. Fatal and serious injury pedestrian crashes were tallied and compared for all wards.

**Map 1** on the following page shows the frequency of fatal and serious injury pedestrian crashes by ward. The 42<sup>nd</sup> Ward had the highest number over the five-year period with 199. The 2001-2005 Study of pedestrian crashes looked at all crashes by ward for the years 2003 and 2005. The results of that study also showed the 42<sup>nd</sup> Ward as having the highest number of crashes.

The 42<sup>nd</sup> Ward includes portions of the Loop and Near North Side community areas, which have high levels of pedestrian activity compared to other neighborhoods. Thus, it is not surprising that it also had the highest number of crashes. This analysis only reveals the total number of crashes and does not account for pedestrian exposure. Pedestrian exposure is discussed in **Section 6.3**.

Map 1: Fatal (K) and Serious Injury (A) Pedestrian Crashes (2005-2009) by Ward



# 6.2 Chicago Community Areas

Further analyses of the pedestrian crashes at the neighborhood level were conducted by CCAs in lieu of wards for several reasons. The CCAs divide the city into 77 areas that have remained constant since 1980, which are tied to commonly referenced neighborhoods. The CCA boundaries are more consistent over time while ward boundaries are redrawn after each US Decennial Census. In addition, the CCA boundaries have been adopted by the US Census, which enables analysis using a variety of demographic data such as population, race, and income. The same level of detail is not available by ward.

The level of pedestrian crashes occurring in each CCA was considered in several different ways. First, the total number of pedestrian crashes and the total number of fatal and serious injury pedestrian crashes were considered for each CCA. **Table 12** lists the top ten CCAs with the most pedestrian crashes over the 2005-2009 time period.

Table 12: CCAs with the Most Pedestrians Crashes

Con	nmunity Area	Total Crashes	Total K&A Crashes
8	Near North Side	1,071	138
32	Loop	924	118
25	Austin	903	130
28	Near West Side	633	93
24	West Town	497	81
6	Lake View	448	67
22	Logan Square	435	67
19	Belmont Cragin	421	81
66	Chicago Lawn	410	55
71	Auburn Gresham	407	73
23	Humboldt Park	398	71
68	Englewood	384	70

The CCAs with the most pedestrian crashes and the most fatal and serious injury crashes are concentrated in central Chicago with two, Chicago Lawn and Auburn Gresham on the southwest side. In fact, the CCAs with the most fatal and serious injury crashes form an east-west band across central Chicago from the Loop and Near North Side on the east to Austin on the west, with the exception of Auburn Gresham.

<sup>&</sup>lt;sup>9</sup> Encyclopedia of Chicago http://encyclopedia.chicagohistory.org/pages/319.html. Accessed April 25, 2011.

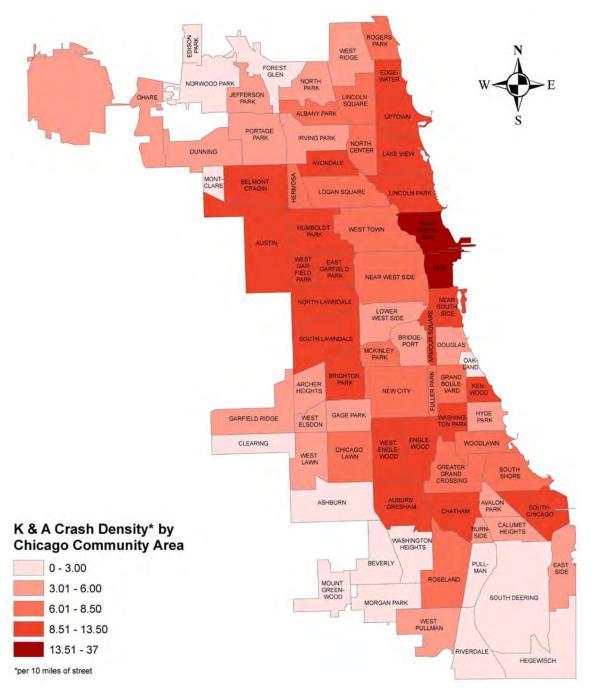
The rates of fatal and serious injury crashes to all crashes also were considered by CCA. **Table 13** lists the CCAs where fatal and serious injury crashes comprised over 25% of all pedestrian crashes. The percentage citywide was 16.3%.

Table 13: Top Fatal and Serious Injury Crash Rates (2005-2009) by CCA

Con	nmunity Area	Total Crashes	K&A Crashes	K&A/Total Crashes
17	Dunning	139	40	28.8%
52	East Side	73	21	28.8%
46	South Chicago	193	53	27.5%
37	Fuller Park	35	9	25.7%
9	Edison Park	20	5	25.0%
11	Jefferson Park	80	20	25.0%
47	Burnside	16	4	25.0%

The number of crashes in each CCA was also compared to the total length of street, in miles. This was done in order to account for the varying sizes of the CCAs. **Map 2** shows the fatal and serious injury pedestrian crashes normalized by the total length of street. In this analysis, the Loop and Near North Side community areas rise to the top of the list, similar to the crash analysis by ward.

Map 2: Fatal (K) and Serious Injury (A) Crashes (2005-2009) per 10 Miles of Street



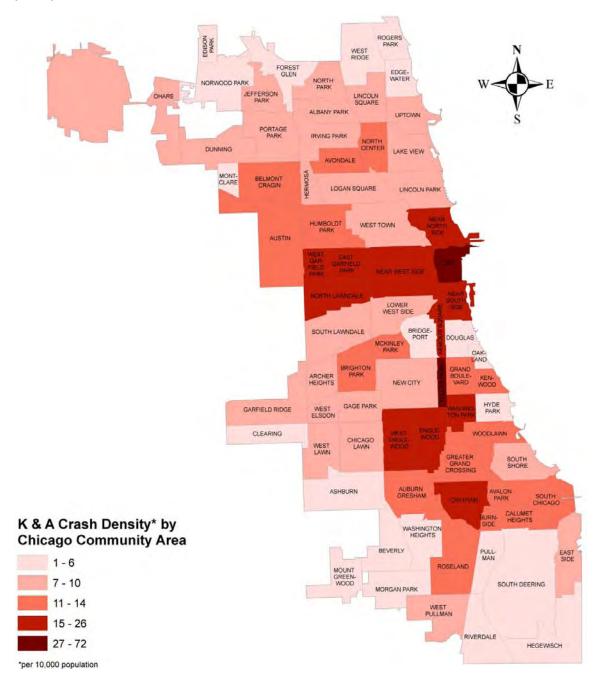
## 6.3 Pedestrian Exposure

Citywide data on pedestrian levels of activity do not exist. To account for pedestrian exposure and identify geographic areas where a disproportionate number of crashes occurred, several surrogate means of quantifying pedestrian exposure were used. The numbers of crashes were then compared to pedestrian exposure by CCA. Surrogate exposure measures included:

- Residents (Map 3)
- CTA Bus Boardings and Alightings (Map 4)
- Population Walking or Taking Transit to Work (Map 5)

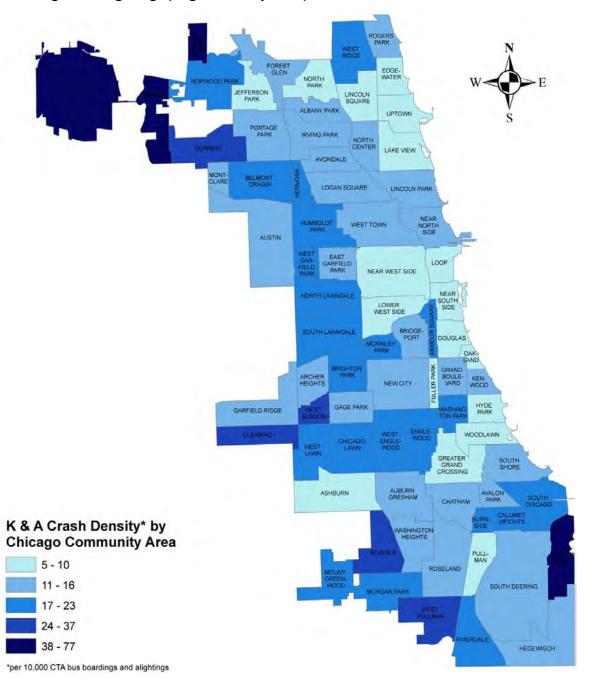
An area resulting in a high density of crashes means that there were a high number of crashes occurring there in relationship to the level of exposure. Fatal and serious injury pedestrian crashes were used for these analyses.

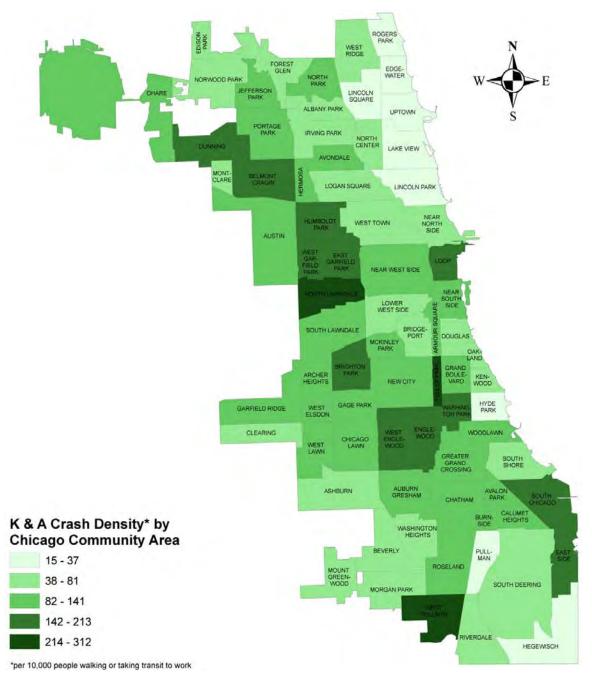
Map 3: Fatal (K) and Serious Injury (A) Pedestrian Crashes (2005-2009) per 10,000 Population (2000)



**Map 4** displays the crash density of fatal and serious injury crashes based on the bus boarding and alighting totals.

Map 4: Fatal (K) and Serious Injury (A) Pedestrian Crashes (2005-2009) per 10,000 CTA Bus Boardings and Alightings (Avg. Weekday 2008)





Map 5: Fatal (K) and Serious Injury (A) Crashes (2005-2009) per Population Walking or Taking Transit to Work (2005-2009)

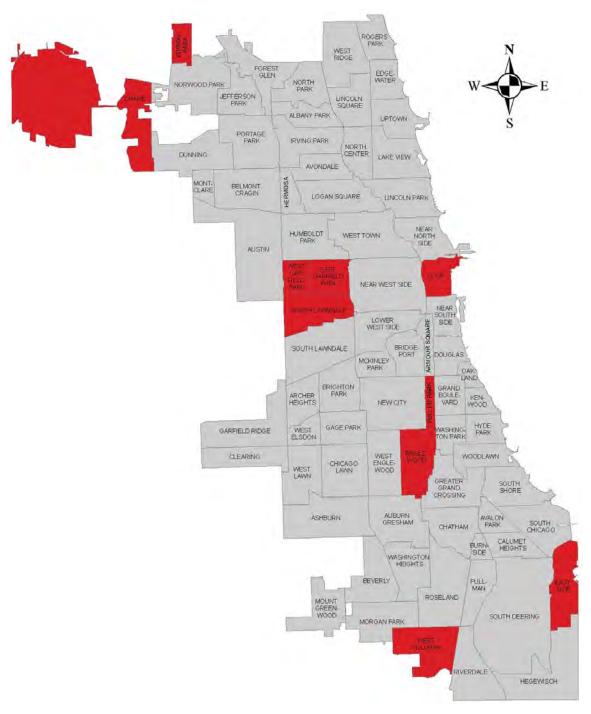
The results from these analyses were combined to identify CCAs with a relatively high density of crashes. Each CCA was assigned a relative ranking for each exposure measure by dividing the crash density value of that CCA by the highest value in that category. The three relative rankings

were then added and ranked to obtain the top ten rankings. These results are listed in **Table 14** and displayed in **Map 6** on the following page.

Table 14: CCA Rankings of Fatal (K) and Serious Injury (A) Crashes (2005-2009) by Pedestrian Exposure

				Relative Rankings					_
Com	munity Area	Total K&A Crashes	Pop	ulation	Bus I	Ridership	,	ney to Jork	Sum of Exposure Rankings
52	East Side	21	8.9	0.12	77	1.00	194	0.62	1.7
32	Loop	118	72.0	1.00	8	0.10	185	0.59	1.7
53	West Pullman	29	7.9	0.11	29	0.38	312	1.00	1.5
76	O'Hare	12	10.0	0.14	71	0.92	108	0.35	1.4
37	Fuller Park	9	26.3	0.37	8	0.10	269	0.86	1.3
29	North Lawndale	67	16.0	0.22	23	0.30	235	0.75	1.3
27	East Garfield Park	40	19.2	0.27	16	0.21	213	0.68	1.2
26	West Garfield Park	40	17.4	0.24	20	0.26	198	0.63	1.1
68	Englewood	70	17.4	0.24	19	0.25	193	0.62	1.1
9	Edison Park	5	4.4	0.06	64	0.83	64	0.21	1.1

Map 6: Top Ten CCAs for Fatal (K) and Serious Injury (A) Crashes (2005-2009) by Pedestrian Exposure



#### 6.4 Motorist and Pedestrian Residence

Data locating the residence of motorists and pedestrians involved in pedestrian crashes between 2005 and 2009 was provided by CDOT. The ten community areas where the most motorists lived were as follows:

- 1. Austin
- 2. Chicago Lawn
- 3. South Shore
- 4. Auburn Gresham
- 5. Belmont Cragin
- 6. West Englewood
- 7. Humboldt Park
- 8. West Town
- 9. West Ridge
- 10. Logan Square

The top ten CCAs of pedestrian residence was a similar list with only two community areas being different. Near North Side and Lake View were included among the top ten CCAs for pedestrian residence whereas South Shore and West Ridge were not.

Several of these CCAs mimic those with the most overall as well as fatal and serious injury crashes, as listed in **Table 12** above.

#### 6.5 Corridors

For this study, a high crash corridor was defined as a continuous roadway, between one and two miles in length, containing a high crash density or two or more high crash intersections. Due to the varying environment of Chicago's roadways and neighborhoods, a maximum length of two miles was used in an attempt to ensure the corridors maintained similar roadway and land use characteristics throughout. Kernel density and intersection crash maps were compared to identify the high crash corridors.

The kernel density is developed by dividing the crash density in the vicinity of each individual crash point, defined by a specified search radius, by the density of the entire study area. This results in areas of high crash densities being highlighted, making it visually apparent where the crashes are concentrated. These maps were created using a search radius of ½-mile around each crash. Locations with a higher crash density are displayed in red, while locations with the lowest crash density are displayed in dark blue.

The kernel density map for fatal and serious injury crashes (**Map 7**) was the primary map used for this analysis, as it produced the most defined corridors. Kernel density maps displaying all pedestrian crashes and fatal pedestrian crashes only were also compared to this map to ensure all high crash corridors were included. Proximate intersections with high crashes also were considered in the determination of high crash corridors.

Twelve high crash corridors were identified using this methodology. Together, these corridors account for 6.7% of all fatal and serious injury crashes during the five-year period.

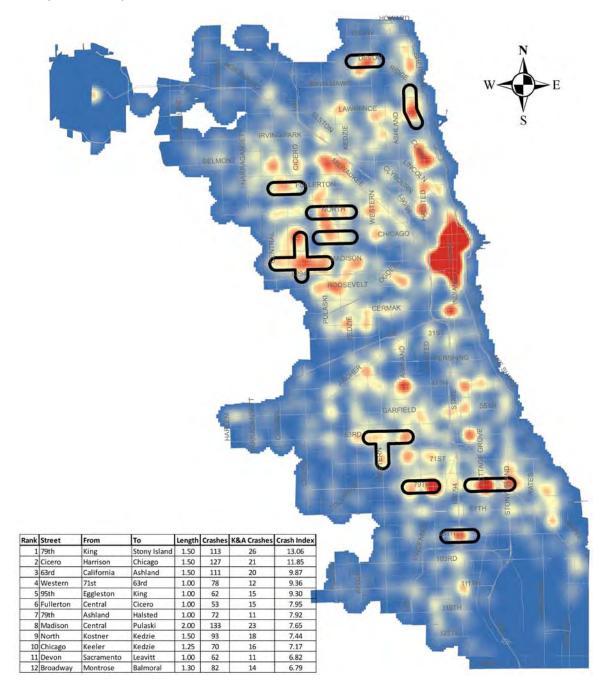
The corridors were ranked using a weighted crash index by mile (**Table 15**.) The total pedestrian crashes per mile were multiplied by the fatal and serious injury pedestrian crashes per mile. The product was then divided by 100 to yield a crash index. The index is thus weighted to give a higher prominence to the fatal and serious injury crashes.

Table 15: High Crash Corridor Rankings (2005-2009)

Rank	Street	From	То	Crash Index
1	79th	King	Stony Island	13.06
2	Cicero	Harrison	Chicago	11.85
3	63rd	California	Ashland	9.87
4	Western	71st	63rd	9.36
5	95th	Eggleston	King	9.30
6	Fullerton	Central	Cicero	7.95
7	79th	Ashland	Halsted	7.92
8	Madison	Central	Pulaski	7.65
9	North	Kostner	Kedzie	7.44
10	Chicago	Keeler	Kedzie	7.17
11	Devon	Sacramento	Leavitt	6.82
12	Broadway	Montrose	Balmoral	6.79

Although the Loop community area had the highest crash density and multiple high crash intersections, it was not included in the high crash corridors. Given the large number, the Loop crashes were analyzed separately in **Section 6.6**.

Map 7: Fatal (K) and Serious Injury (A) Pedestrian Crash Kernel Density and High Crash Corridors (2005-2009)

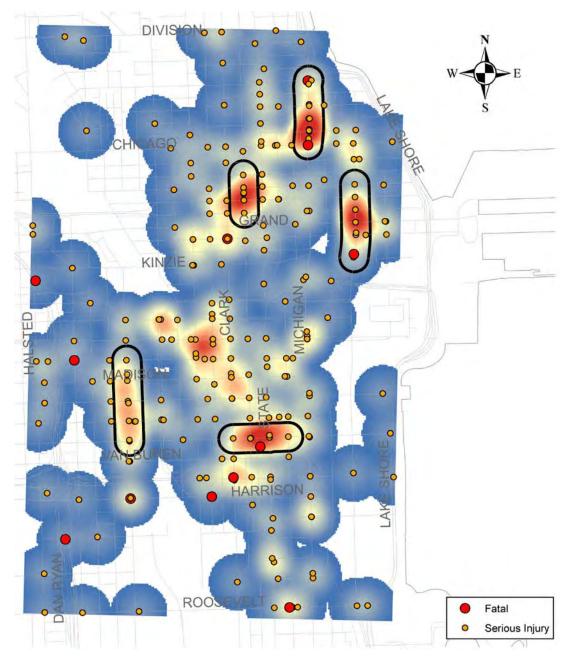


# 6.6 Central Business District Corridors

The kernel density analysis described above revealed the entire Loop and Near North community areas as high density crash areas. Therefore, a second kernel density analysis was conducted of the CBD, bounded roughly by Division Street on the north, Roosevelt Road on the south,

Halsted Street on the west, and Lake Michigan on the east. These limits were selected in lieu of the CCA boundaries in order to focus on the core downtown area. This analysis used a search radius of 1/16-mile. The results are displayed in **Map 8.** 

Map 8: Fatal (K) and Serious Injury (A) Pedestrian Crashes Kernel Density (2005-2009) in the Central Business District



Five high crash corridors were identified within the CBD. These corridors account for 19.5% of all fatal and serious injury crashes within the CBD during the five-year study period.

The corridors were ranked using the same weighted crash density by mile as was used in the citywide corridor analysis. **Table 16** shows these rankings.

**Table 16: CBD High Crash Corridor Rankings (2005-2009)** 

Rank	Street	From	То	Crash Index
_1	Dearborn	Ohio	Huron	166.37
2	Jackson	Clark	Wabash	136.50
3	Michigan	Chicago	0ak	134.60
4	Columbus/Fairbanks	Water	Ontario	129.58
5	Canal	Jackson	Washington	57.44

Pedestrian counts were available for this area from 2007. The crashes in these corridors were compared to the average number of pedestrians on one side of one block within the corridor. The results of the rankings and comparisons are included in **Table 17**.

Table 17: Top Corridors within the Central Business District (2005-2009)

Rank	Street	From	To	Crash Index	Crashes/10,000 Peds
_1	Dearborn	Ohio	Huron	166.37	246.81
2	Columbus/Fairbanks	Water	Ontario	129.58	152.94
3	Michigan	Chicago	Oak	134.60	52.78
4	Jackson	Clark	Wabash	136.50	46.15
5	Canal	Jackson	Washington	57.44	43.75

When considering pedestrian exposure, the Columbus/Fairbanks corridor moved up to the second ranked corridor and the Jackson corridor moved to number four.

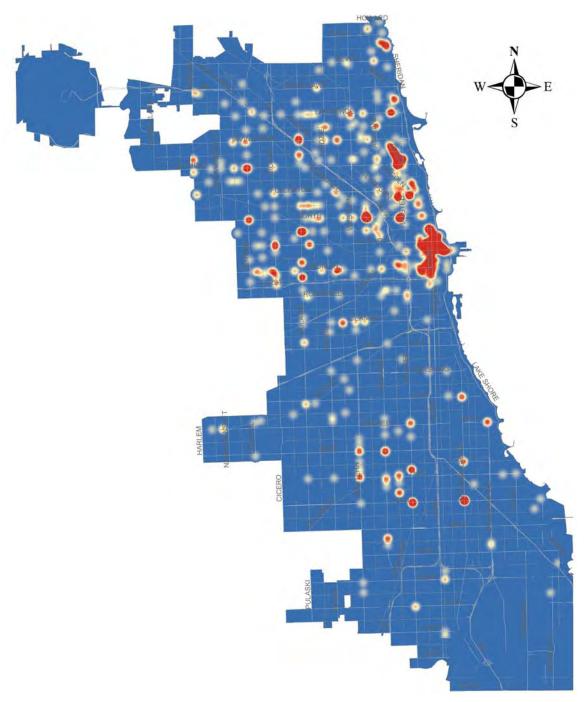
## 6.7 Nightlife and Nighttime Crashes

Additional kernel density maps were created to identify locations of high concentrations of nighttime crashes that occurred near businesses with liquor licenses.

The pedestrian crash data did not include reliable data on whether the driver or the pedestrian had been drinking. It is possible that the high level of hit and run crashes is a limiting factor in reporting the motorist's alcohol involvement. Meanwhile, obtaining this data for pedestrians is difficult as it is not an infraction of the law for a pedestrian to be intoxicated.

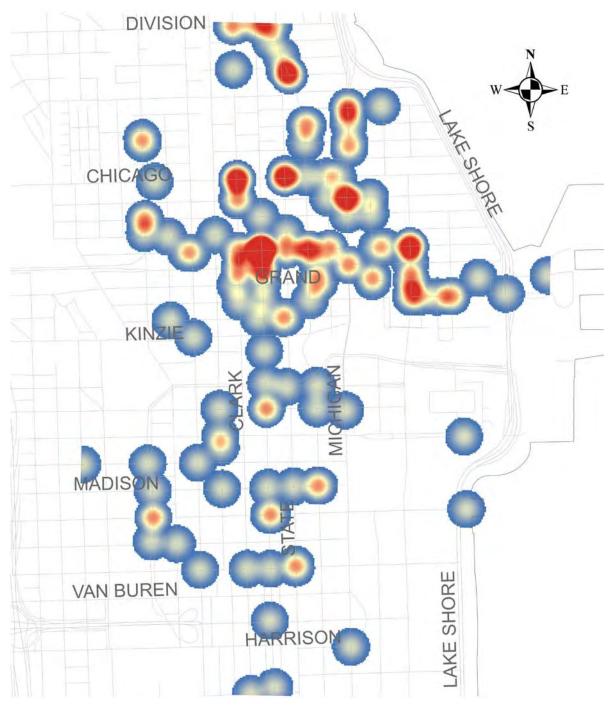
In lieu of this, pedestrian crashes that occurred between 9:00 p.m. and 3:00 a.m. and in the vicinity of a business with a liquor license were mapped to determine if there were any concentrations of these types of crashes. **Map 9** on the next page shows a kernel density of these crashes citywide using a ¼-mile search radius and **Map 10**, following, shows a second analysis of the CBD, which showed up as a hot spot in the first map, using a search radius of 1/16 of a mile.

Map 9: Kernel Density of Nighttime Crashes (9:00 p.m. – 3:00 a.m.) Near Businesses with Liquor Licenses (2005-2009)



Several locations stand out on these maps. The corridors along Clark Street from Belmont Avenue to Grace Street and two corridors along Halsted Street and Lincoln Avenue, just south of where they intersect. Several intersections also showed up as hot spots for these crashes, including the Damen Avenue/Milwaukee Avenue/North Avenue intersection, 79<sup>th</sup> Street and Halsted Street, 79<sup>th</sup> Street and Cottage Grove Avenue, and 69<sup>th</sup> Street and Halsted Street.

Map 10: Kernel Density of Nighttime Crashes (9:00 p.m. – 3:00 a.m.) Near Businesses with Liquor Licenses in CBD (2005-2009)



Focusing in on the area that showed up as one entire hot spot in the previous analysis, the kernel density analysis shows some additional localized high crash areas. Notable are two corridors along Ontario Street between Clark Street and Rush Street and along Columbus Drive/Fairbanks Court between Ontario Street and Illinois Street. In addition, there are several hot spots at intersections scattered throughout this area.

#### 6.8 Intersections

The IDOT crash data include a code for intersection-related crashes. According to the *Illinois Traffic Safety Report SR 1050*, a crash does not have to actually occur at the intersection to be intersection-related. For example, if a crash occurs due to vehicles queuing at a traffic signal, that crash would be considered intersection-related. This coding relies on the officer in the field to use his/her judgment and record the crash accurately. If the officer leaves that portion of the crash report incomplete, the crash is considered not intersection-related. This can result in incorrectly reported data.

In order to ensure that all crashes at intersections were captured, intersection-related crashes for this analysis were defined spatially instead of using the intersection code. Intersection-related crashes were defined as those occurring within 125 feet from the midpoint of the intersection. This distance was chosen to represent the majority of Chicago intersections. The consequence of using a shorter distance is that it would exclude crashes at the larger intersections, which tend to be the most intimidating to pedestrians. On the other hand, using a distance much larger than 125 feet would capture mid-block crashes on the shorter blocks, which are prevalent in the Loop.

Based on this definition, 77.7% of all crashes and 79.7% of fatal and serious injury crashes were intersection-related. (See **Table 18** on the following page.) Crashes that were coded as intersection-related by IDOT accounted for 53.5% of all pedestrian crashes.

The 2001-2005 Study employed a similar method to define intersection-related crashes, but used a buffer distance of 50 feet. That study found that only 43.5% of the crashes were intersection-related.

The findings from 2005 through 2009 are similar to the results from the NYC Study, which found that 74% of the fatal and serious injury crashes occurred at intersections. Nationally, however, roughly 46% of pedestrian crashes are intersection-related.

**Table 18: Intersection-Related Pedestrian Crashes** 

	2005	2006	2007	2008	2009	Total
	2003	2000	2007	2000	2009	TOLAI
All Crashes						
Intersection-	2,671	2,890	2,862	2,720	2,451	13,594
Related	78.4%	76.4%	77.7%	78.1%	78.3%	77.7%
Non Intersection-	735	891	824	764	679	3,893
Related	21.6%	23.6%	22.4%	21.9%	21.7%	22.3%
Total	3,406	3,781	3,686	3,484	3,130	17,487
(Year %)	(19.5%)	(21.6%)	(21.1%)	(19.9%)	(17.9%)	100.0%
Fatal and Serious Inj	ury Crashes					
	522	490	427	391	401	2,231
Intersection-Related	77.8%	75.0%	75.6%	98.7%	77.7%	79.7%
Non Intersection-	149	163	138	5	115	570
Related	22.2%	25.0%	24.4%	1.3%	22.3%	20.3%
Total	671	653	565	396	516	2,801
(Year %)	(24.0%)	(23.3%)	(20.2%)	(14.1%)	(18.4%)	100.0%

The 20 intersections with the highest incidence of pedestrian crashes were identified and are displayed in **Map 11** on the next page and listed in **Table 19**, following. The map and table actually portray 22 intersections, as there were eight intersections with 17 crashes each. These 22 intersections accounted for 434 pedestrian crashes, or 3.2% of all intersection-related crashes. The most crashes occurred at Ashland Ave. and 63<sup>rd</sup> St., with 29 crashes.

Map 11: Intersections with Highest Pedestrian Crash Counts (2005-2009)

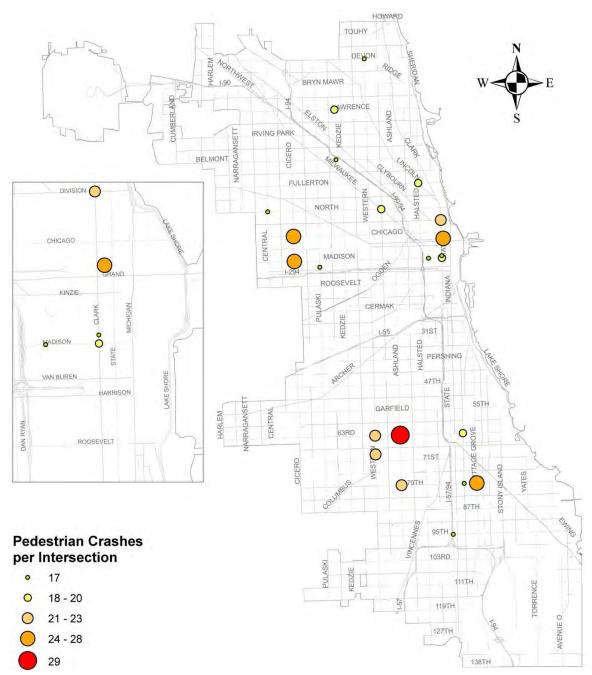


Table 19: Intersections with Highest Pedestrian Crash Counts (2005-2009)

Crash	N. /0.0.	T MALC:	Diagonal	X47 1	004
Count	N/S Street	E/W Street	Street	Ward	CCA
29	Ashland Av	63rd St	n/a	16	West Englewood
27	Cicero Av	Madison St	n/a	28	Austin
26	Cottage Grove Av	79th St	n/a	6/8	Chatham/Greater Grand Crossing
26	Cicero Av	Chicago Av	n/a	28/37	Austin
25	Dearborn St	Ontario St	n/a	42	Near North Side
23	Ashland Av	79th St	n/a	17/21	Auburn Gresham
22	Western Av	63rd St	n/a	15	Chicago Lawn
21	Clark St	Division St	n/a	42	Near North Side
21	Western Av	69th St	n/a	17	Chicago Lawn
20	Kimball Av	Lawrence Av	n/a	33/39	Albany Park
19	Halsted St	Fullerton Av	Lincoln Av	43	Lincoln Park
19	Damen Av	North Av	Milwaukee Av	1/32	West Town
19	King Dr	63rd St	n/a	20	Greater Grand Crossing/ Washington Park/Woodlawn
18	Clark St	Madison St	n/a	42	Loop
17	Kimball Av	Belmont St	n/a	35	Avondale
17	King Dr	79th St	n/a	6	Chatham/Greater Grand Crossing
17	Central Av	North Av	n/a	29/37	Austin
17	State St	95th St	n/a	6/21	Roseland
17	Clinton St	Madison St	n/a	2/42	Near West Side
17	Pulaski Rd	Jackson Blvd	n/a	28	West Garfield Park
17	Western Av	Devon Av	n/a	50	West Ridge
17	Clark St	Washington St	n/a	42	Loop

The intersections with the most fatal and serious injury crashes were also identified. Examining the fatal and serious injury crashes that occurred at intersections revealed that 6 intersections had five fatal and serious injury crashes and 24 intersections had four. In the case of these crashes, the top 30 intersections accounted for 5.6% of all intersection-related fatal and serious injury pedestrian crashes. **Map 12** on the next page displays these intersections and **Table 20**, following, lists the results.

Map 12: Intersections with the Highest Fatal (K) and Serious Injury (A) Pedestrian Crash Counts (2005-2009)

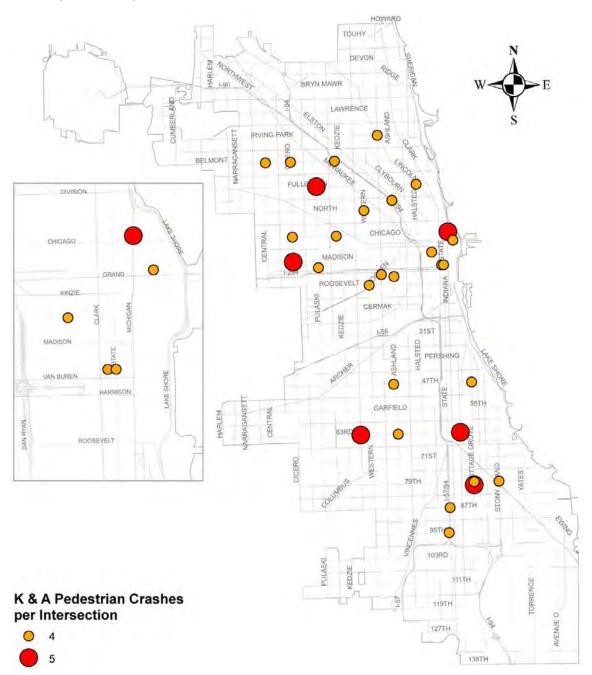


Table 20: Intersections with the Highest Fatal and Serious Injury Crash Counts (2005-2009)

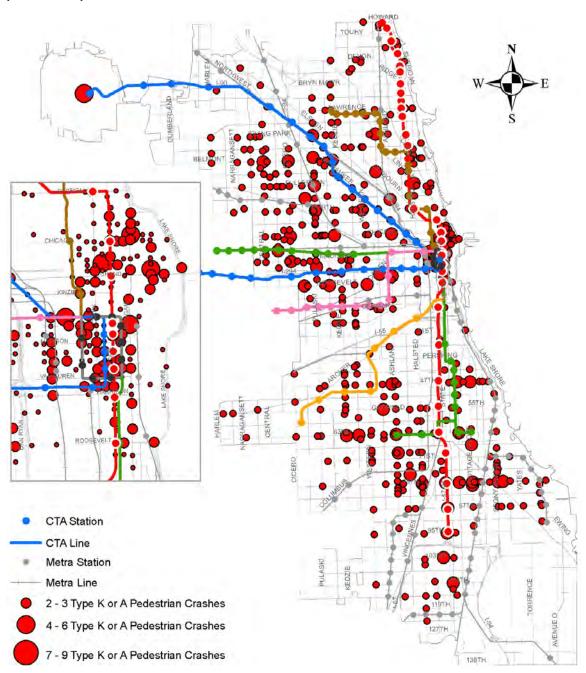
Crash Count	N/S Street	E/W Street	Diagonal Street	Ward	CCA
5	Michigan Av	Pearson St	n/a	42	Near North Side
5	Pulaski Rd	Fullerton Av	n/a	30/31	Hermosa/Logan Square
5	Cottage Grove Av	80th St	n/a	8	Chatham
5	King Dr	63rd St	n/a	20	Greater Grand Crossing/ Washington Park/Woodlawn
5	Cicero Av	Madison St	n/a	28	Austin
5	California Av	63rd St	n/a	15	Chicago Lawn
4	Ashland Av	63rd St	n/a	16	West Englewood
4	Homan Av	Chicago Av	n/a	27	Humboldt Park
4	Ashland Av	Cortland St	n/a	32	Logan Square
4	Halsted St	Fullerton Av	Lincoln Av	43	Lincoln Park
4	Cottage Grove Av	47th St	n/a	4	Kenwood/Grand Boulevard
4	Kimball Av	Belmont Av	n/a	35	Avondale
4	Central Av	Belmont Av	n/a	30/38	Portage Park/Belmont Cragin
4	Stony Island Av	79th St	South Chicago Av	5/8	Avalon Park/South Chicago/South Shore
4	Cottage Grove Av	79th St	n/a	6/8	Chatham/Greater Grand Crossing
4	Campbell Av	North Av	n/a	1/26	West Town
4	Ashland Av	Polk St	n/a	2/25	Near West Side
4	Fairbanks Ct	Ohio St	n/a	42	Near North Side
4	Dearborn St	Jackson Blvd	n/a	2/42	Loop
4	Pulaski Rd	Jackson Blvd	n/a	28	West Garfield Park
4	Lafayette Av	95th St	n/a	21	Roseland
4	Paulina St*	47th St	n/a	3/20	New City
4	Wacker Dr	Lake St	n/a	42	Loop
4	Western Av	Roosevelt Rd	n/a	25/28	Near West Side
4	Cicero Av	Belmont Av	n/a	30/31	Portage Park/Belmont Cragin
4	Damen Av	Irving Park Rd	Lincoln Av	47	North Center
4	State St	Jackson Blvd	n/a	2/42	Loop
4	Cicero Av	Chicago Av	n/a	28/37	Austin
4	State St	87th St	n/a	6	Chatham
4	Damen Av	n/a	Ogden Av	2/25	Near West Side

<sup>\*</sup>Only non-signalized high-crash intersection

# 6.9 Chicago Transit Authority Transit Stations

An overlay of CTA and Metra rail lines over pedestrian crashes is shown in Map 13.

Map 13: CTA and Metra Rail Lines with Fatal (K) and Serious Injury (A) Pedestrian Crashes (2005-2009)



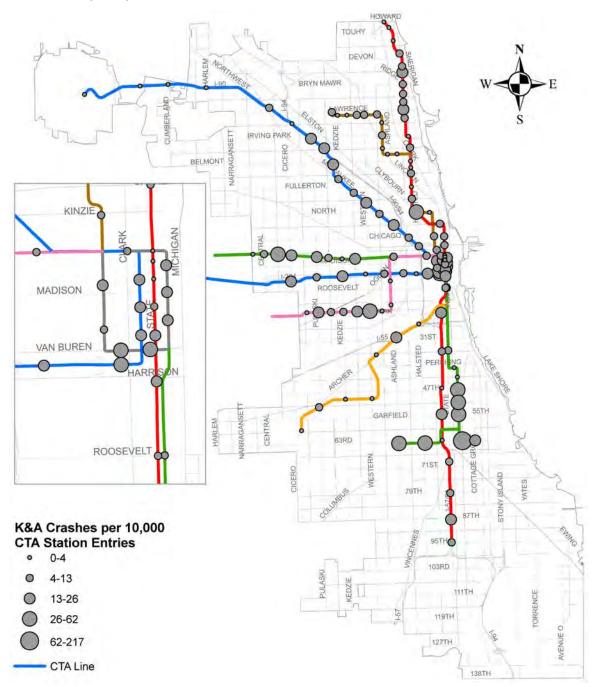
**Map 13** shows a relationship between certain transit stations and high levels of pedestrian crashes. Transit stations with the highest number of pedestrian crashes appear to be along the southern corridor of the Red Line, the Blue Line along Milwaukee Avenue, and several stations along the Green Line.

An analysis of the crashes near CTA rail stations was conducted to quantify crashes by station in order to compare the stations relative to each other. For this analysis, the average number of fatal and serious injury pedestrian crashes per day over the five-year period, within 1/8 mile of the station, was normalized by the average number of customers entering a station in a day. (See **Map 14**.) This distance was selected to capture crashes near the station while minimizing crashes that would be double-counted due to stations that are closely spaced. Several locations along the Brown Line, Red Line, and in the Loop have stations that are spaced at ¼-mile or closer. **Table 21** lists the top ten CTA stations from this analysis.

Table 21: CTA Stations with Top Ten Fatal (K) and Serious Injury (A) Pedestrian Crashes (2005-2009) per 10,000 Daily Entries (2010)

Line & Station	Entries/Day	Avg. K&A Crashes/ Day	K&A Crash- es/100,000 Daily Entries
Green Line - King Drive	508	0.00603	1.19
Green Line - Ashland/63rd	1,292	0.00438	0.34
Green Line - Laramie	1,223	0.00384	0.31
Green Line - 47th	1,123	0.00329	0.29
Pink Line - Western/Douglas	899	0.00219	0.24
Green Line - Halsted/63rd	734	0.00164	0.22
Loop Elevated - Library	3,442	0.00767	0.22
Blue Line - LaSalle	2,133	0.00438	0.21
Loop Elevated - LaSalle/Van Buren	2,178	0.00438	0.20
Green Line - Garfield	1,123	0.00219	0.20

Map 14: Fatal (K) and Serious Injury (A) Pedestrian Crashes (2005-2009) per 10,000 CTA Station Entries (2010)



# 6.10 Schools

# Primary School-Related Crashes

School-related crashes were defined as those involving school-aged youth and occurring within ¼-mile of a school during typical school arrival and dismissal times. The school arrival and dismissal times were taken as 7:00 to 9:00 a.m. and 1:00 to 4:00 p.m., Monday through Friday. Crashes near primary schools, grades kindergarten (K) through 8, were analyzed separately from crashes near high schools, grades 9 through 12. All schools that included any grade level from K through 8<sup>th</sup> grade were considered primary schools. Crashes that occurred during the summer months were included in this analysis as many schools adhere to a year-round schedule or host summer education programs. Primary school-related crashes included youths aged 5 to 14 and high school-related crashes included youths aged 15 to 18.

There were a total of 706 primary school-related crashes during this five-year period. Of those, 1 was fatal and 95 resulted in serious injury.

**Map 15** on the following page displays the primary school-related crashes for youths aged 5 to 14 and lists the primary schools with the highest crash counts. One school, Bouchet Elementary Math and Science Academy, in the South Shore community area, stands out with 13 school-related crashes. Otherwise, the crash patterns show a relatively flat distribution near schools. As noted in **Section 4.3** above, males in this age group were much more likely to be involved in crashes than females.

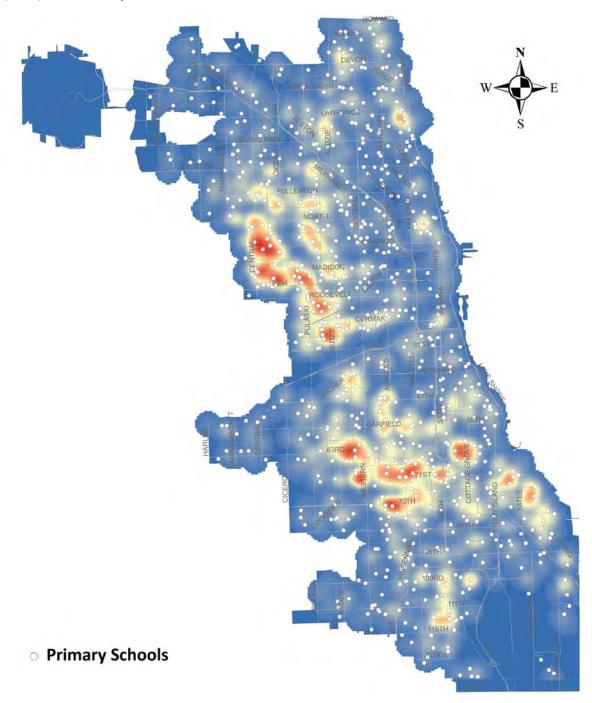
Other

Crash Count **School Name School Address** 7355 S. Jeffery Blvd. Bouchet 13 8 Castellanos 2524 S. Central Park Ave St Philip Neri School 2110 E. 72nd St Smith 744 E. 103rd St Hope Lutheran 6416 S. Washtenaw Ave. Green, W. 1150 W. 96th St. Chicago S D A Academy 7008 S. Michigan Ave. 3711 W. Douglas Blvd. 6 Herzl Altgeld 1340 W. 71st St. McKay 6901 S. Fairfield Ave. Boone 6710 N. Washtenaw Ave. Brighton Park 3825 S. Washtenaw Ave. **Injury Severity** Fatal Serious Injury

Map 15: Primary School-Related (Ages 5-14) Pedestrian Crashes (2005-2009)

It is difficult to determine any trends from the primary school-related crashes. Thus, a kernel density of crashes involving this age group was developed, using all crashes, instead of limiting it to school arrival and dismissal times. **Map 16** on the next page shows these results. The primary schools are laid over the crash intensity. This map indicates that there are distinct regions of the city where a high level of youth crashes occurred, notably, the west and south sides. The most intense areas lie within the Austin, Chicago Lawn, and Auburn Gresham community areas.

Map 16: Kernel Density of All Pedestrian Crashes (2005-2009) for Primary School-Aged Youth (5-14) and Primary Schools

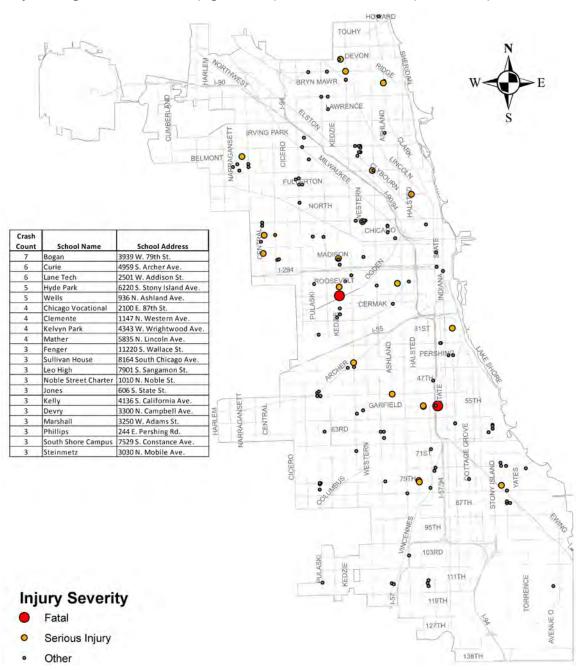


## **High School-Related Crashes**

High school-related crashes of youths aged 15 to 18 numbered 155; of which 2 were fatal and 20 were serious injury crashes.

The top 20 high schools with the highest crash counts using the school-related crash criteria noted above are shown and listed in **Map 17**. Similar to crashes near primary schools, the distribution of crashes near high schools was relatively flat.

Map 17: High School-Related (Ages 15-18) Pedestrian Crashes (2005-2009)



#### **6.11 Senior Crashes**

The spatial distribution of senior crashes also was analyzed. **Table 22** shows the senior crash distribution per ward. <sup>10</sup> The highest number of crashes occurs in the Loop (42<sup>nd</sup> Ward).

Table 22: Senior (65+) Pedestrian Crashes (2005-2009) by Ward

Crash Count	Ward	Crash Count	Ward
125	42	21	20
53	2	21	33
43	1	21	40
36	38	20	35
33	30	20	48
33	47	19	28
32	25	19	44
32	39	18	8
31	6	18	9
30	43	18	21
29	11	18	36
29	45	17	3
27	31	17	5
27	41	17	13
27	50	17	49
26	17	16	22
25	23	15	10
25	32	14	27
24	14	13	15
24	24	13	37
23	4	12	7
23	26	10	29
23	46	8	34
22	12	7	18
22	16	7	19
		•	

As senior crashes more often result in fatalities or serious injuries, **Map 18** plots the locations of the fatal and serious injury senior crashes. This map shows some concentrations of crashes in the Near North Side community area and northwest along Milwaukee Avenue. A kernel density map shows these concentrations more clearly in **Map 19**. The most notable concentrations occurred in the Loop and Near North Side community areas as a whole. Some corridors also stand out including Milwaukee Avenue between Kedzie Avenue and Pulaski Avenue, Western Avenue

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<sup>&</sup>lt;sup>10</sup> The total number of senior crashes per ward equals 1,220. Eighteen of the 1,238 total senior crashes were incorrectly geocoded and were not assigned a ward.

between 63<sup>rd</sup> Street and 71<sup>st</sup> Street and between Chicago Avenue and Grand Avenue, Fullerton Avenue between Cicero Avenue and Central Avenue, and Lawrence Avenue between Broadway Avenue and Ashland Avenue.

**Map 19** also overlays the senior resource locations on the kernel density. These locations indicate where higher levels of senior pedestrian traffic may be, and also serve as potential outreach venues for senior pedestrian safety efforts.

Senior resources include the following:

Senior Centers — Regional or satellite centers that provide informational services to seniors. Services vary from fitness and wellness programs to employment, benefits and legal assistance. There are 19 senior centers in Chicago.

Senior Community Partners – Religious institutions or non-profit organizations that provide companionship services to seniors. Services include meals, activities and counseling. There are 33 senior community partners in Chicago.

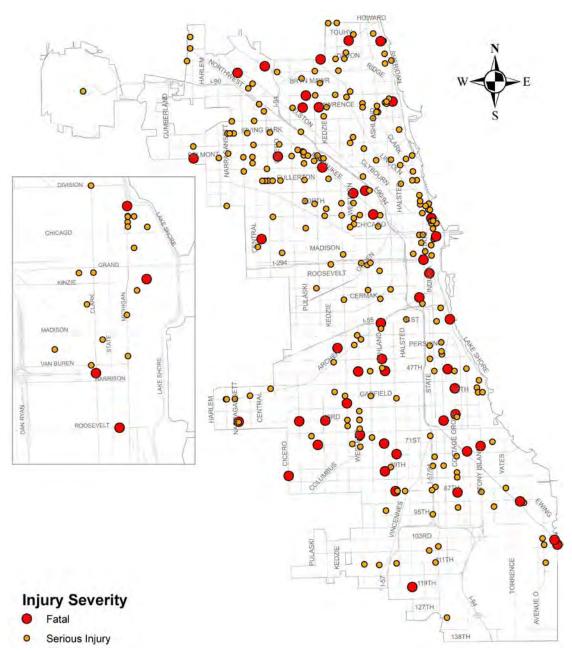
Senior Fitness Resources – Religious institutions, apartment complexes, or community centers that host city sponsored fitness programs with senior-friendly exercises and equipment. There are 57 senior fitness resources in Chicago.

Senior Golden Diners – Religious institutions, apartment complexes, or community centers that host city sponsored lunches served to seniors. There are 71 senior golden diners in Chicago.

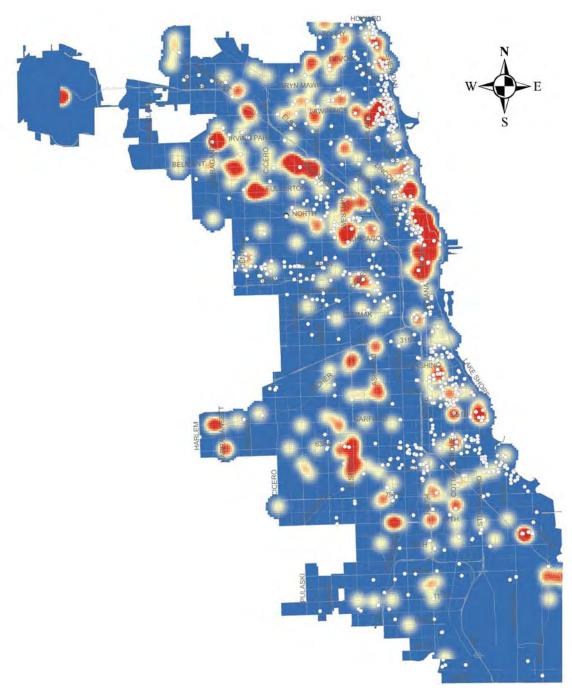
Senior Housing Resources – Any senior housing complex, including nursing homes, group homes, assisted living centers and multi-family units. There are 686 senior housing resources in Chicago.

Several senior resources throughout Chicago provide numerous senior services and are classified as more than one resource type.

Map 18: Senior (65+) Pedestrian Crashes (2005-2009)



Map 19: Senior (65+) Pedestrian Crashes (2005-2009) Kernel Density and Senior Resources



#### 7 ENVIRONMENTAL

Analyses of environmental factors were conducted to understand what the conditions were at the time and location of the crash. Weather and visibility factors were analyzed and compared to the 2001-2005 Study. Characteristics of the roadway were also analyzed, including number of travel lanes, roadway type, intersection geometry, traffic controls and vehicle type and use. Several of these analyses were normalized to identify roadway characteristics that were overrepresented in pedestrian crashes.

## 7.1 Light and Weather

The percentage of crashes by lighting condition (**Table 23**) shows that most crashes occurred during daylight hours with the second highest percentage occurring during darkness, along lighted roads. The high proportion of crashes along lighted roads compared to along unlit roads is expected given the extent of street lighting used in Chicago. Further, pedestrians are more attracted to well-lit streets than dark streets and there are likely to be higher levels of pedestrian activity on those streets. These results are similar to those from the 2001-2005 Study.

**Table 23: Crashes by Light Condition by Year** 

	2005	2006	2007	2008	2009	Total
Daylight	2,090	2,409	2,358	2,243	1,965	11,065
	61.4%	63.7%	64.0%	64.4%	62.8%	63.3%
Dawn and Dusk	193	199	149	164	165	870
	5.7%	5.3%	4.0%	4.7%	5.3%	5.0%
Darkness	179	221	237	209	160	1,006
	5.3%	5.8%	6.4%	6.0%	5.1%	5.8%
Darkness,	904	906	893	813	789	4,305
Lighted Road	26.5%	24.0%	24.2%	23.3%	25.2%	24.6%
Unknown	40	46	49	55	51	241
	1.2%	1.2%	1.3%	1.6%	1.6%	1.4%
Total	3,406	3,781	3,686	3,484	3,130	17,487
(Year %)	(19.5%)	(21.6%)	(21.1%)	(19.9%)	(17.9%)	100.0%

The weather data (**Table 24**) indicate that 77.4% of pedestrians were struck during clear conditions. However, pedestrian exposure is typically greater during fair weather. As would be expected, the data for roadway conditions (**Table 25**) are similar and show that 73% of pedestrians were struck on dry roadways. These data show slightly different results from the 2001-2005 Study, during which 83% of pedestrians were struck in clear conditions and 80% on dry roadways.

Table 24: Crashes by Weather Condition by Year

	2005	2006	2007	2008	2009	Total
Clear	2,756	2,892	2,932	2,610	2,340	13,530
	80.9%	76.5%	79.5%	74.9%	74.8%	77.4%
Rain	372	546	392	441	477	2,228
	10.9%	14.4%	10.6%	12.7%	15.2%	12.7%
Snow	133	51	145	212	131	672
	3.9%	1.3%	3.9%	6.1%	4.2%	3.8%
Fog/Smoke/Haze	16	164	86	75	58	399
	0.5%	4.3%	2.3%	2.2%	1.9%	2.3%
Sleet/Hail	19	12	18	21	24	94
	0.6%	37.5%	64.3%	63.6%	104.3%	0.5%
Severe Cross Wind	4	4	3	4	0	15
	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%
Other	23	32	28	33	23	139
	0.7%	0.8%	0.8%	0.9%	0.7%	0.8%
Unknown	83	80	82	88	77	410
	2.4%	2.1%	2.2%	2.5%	2.5%	2.3%
Total	3,406	3,781	3,686	3,484	3,130	17,487
(Year %)	(19.5%)	(21.6%)	(21.1%)	(19.9%)	(17.9%)	100.0%

Table 25: Crashes by Roadway Conditions by Year

	2005	2006	2007	2008	2009	Total
Dry	2,563	2,875	2,747	2,430	2,182	12,797
	75.2%	76.0%	74.5%	69.7%	69.7%	73.2%
Wet	550	684	622	664	672	3,192
	16.1%	18.1%	16.9%	19.1%	21.5%	18.3%
Snow/Slush	106	43	119	196	123	587
	3.1%	1.1%	3.2%	5.6%	3.9%	3.4%
Ice	10	8	12	33	16	79
	0.3%	0.2%	0.3%	0.9%	0.5%	0.5%
Sand/Mud/Dirt	2	4	0	5	3	14
	0.1%	50.0%	0.0%	125.0%	75.0%	0.1%
Other	4	8	7	4	4	27
	0.1%	0.2%	0.2%	0.1%	0.1%	0.2%
Unknown	171	159	179	152	130	791
	5.0%	4.2%	4.9%	4.4%	4.2%	4.5%
Total	3,406	3,781	3,686	3,484	3,130	17,487
(Year %)	(19.5%)	(21.6%)	(21.1%)	(19.9%)	(17.9%)	100.0%

#### 7.2 Number of Travel Lanes

**Table 26** shows the crashes by number of travel lanes for all pedestrian crashes and fatal and serious injury pedestrian crashes. The number of lanes refers to the total number of through lanes on a roadway and includes both directions of travel, but does not include turn lanes. 44.2% of pedestrian crashes occurred on roadways with two travel lanes. The next highest proportion occurred on roadways with four travel lanes, at 25.9%, followed by roadways with one travel lane, at 21.4%. It should be noted that the percentage of fatal and serious injury crashes was lower than all crashes for one and two-lane roadways, but was higher on four-lane roadways. These results are similar to those from the 2001-2005 Study.

**Table 26: Pedestrian Crashes by Number of Travel Lanes** 

T	2005	2006	2007	2000	2000	T-4-1
Lanes	2005	2006	2007	2008	2009	Total
All Crashes						
1	576	690	607	553	485	2,911
	21.3%	23.5%	21.4%	20.7%	20.0%	21.4%
2	1,199	1,258	1,273	1,181	1,083	5,994
-	44.3%	42.8%	45.0%	44.1%	44.8%	44.2%
3	102	102	114	121	96	535
	3.8%	3.5%	4.0%	4.5%	4.0%	3.9%
4	694	756	715	697	655	3,517
	25.6%	25.7%	25.3%	26.1%	27.1%	25.9%
5	21	25	25	27	33	131
	0.8%	0.9%	0.9%	1.0%	1.4%	1.0%
6+	116	108	97	96	68	485
	4.3%	3.7%	3.4%	3.6%	2.8%	3.6%
Total	2,708	2,939	2,831	2,675	2,420	13,573
(Year %)	(20.0%)	(21.7%)	(20.9%)	(19.7%)	(17.8%)	100.0%
Fatal and Se	rious Injury	y Crashes				
1	102	118	88	67	65	440
	18.6%	23.0%	20.0%	17.0%	16.2%	19.1%
2	219	211	187	168	172	957
	40.0%	41.1%	42.5%	42.5%	42.8%	41.6%
3	17	18	19	14	12	80
	3.1%	3.5%	4.3%	3.5%	3.0%	3.5%
4	170	139	122	120	129	680
	31.0%	27.1%	27.7%	30.4%	32.1%	29.6%
5	6	8	4	10	6	34
	1.1%	1.6%	0.9%	2.5%	1.5%	1.5%
6+	34	19	20	16	18	107
	6.2%	3.7%	4.5%	4.1%	4.5%	4.7%
Total	548	513	440	395	402	2,298
(Year %)	(23.8%)	(22.3%)	(19.1%)	(17.2%)	(17.5%)	100.0%

Without data on the overall distribution of roadways and number of lanes in Chicago, it is difficult to determine if the crashes are proportional to the roadway characteristics. However, it is likely that there are more than twice as many two-lane roads than four-lane roads. This can be

assumed by examining the length of local and collector streets compared to the length of arterial streets, as defined by IDOT's roadway classification. The IDOT roadway classifications are included in **Appendix D.** While the number of lanes on Chicago's streets are not consistent along the entire length of the street and are not directly related to the functional classifications, arterial streets are more likely to be four lanes wide than collector and local streets. Arterial streets account for roughly 10% of all streets in Chicago, by mile. Pedestrian crashes on four-lane roads are therefore likely overrepresented; meaning the proportion of crashes attributed to four-lane roads is larger than the proportion of the length of four-lane roads to the overall length of roads in Chicago.

**Table 27** shows the crashes that occurred within the high crash corridors by the number of travel lanes. This analysis included only mid-block crashes. In the IDOT data, crashes coded as "0" for the number of lanes were those taking place at intersections. These instances were removed for this analysis. In addition, several crashes were coded as intersection-related, but included a value for the number of lanes field. These also were removed for this analysis.

More than 50.0% of the crashes along these corridors were on four-lane roadways, compared to 25.9% of crashes citywide that occurred on four-lane roadways.

**Table 27: Pedestrian Crashes in High Crash Corridors by Number of Travel Lanes** 

	2005	2006	2007	2008	2009	Total
1	9	8	13	3	7	40
	13.6%	12.7%	15.9%	4.1%	10.8%	11.5%
2	21	17	21	22	22	103
	31.8%	27.0%	25.6%	30.1%	33.8%	29.5%
3	1	0	1	0	0	2
	1.5%	0.0%	1.2%	0.0%	0.0%	0.6%
4	32	37	43	42	31	185
	48.5%	58.7%	52.4%	57.5%	47.7%	53.0%
5	0	0	1	1	2	4
	0.0%	0.0%	1.2%	1.4%	3.1%	1.1%
6+	3	1	3	5	2	14
	4.5%	1.6%	3.7%	6.8%	3.1%	4.0%
	0	0	0	0	1	1
Unknown	0.0%	0.0%	0.0%	0.0%	1.5%	0.3%
Total	66	63	82	73	65	349
(Year %)	(18.9%)	(18.1%)	(23.5%)	(20.9%)	(18.6%)	100.0%

## 7.3 Roadway Type

The number of lanes is often related to the roadway type and similar to four-lane roadways, arterials were overrepresented in pedestrian crashes. **Table 28** on the following page shows the breakdown of pedestrian crashes by roadway type. The overrepresentation of crashes along

arterials was possibly related to the higher speeds and traffic volumes on arterials compared with collector and local streets. The roadway types of the crashes are coded based on the IDOT roadway functional classification system.

Among all pedestrian crashes, 23.3% occurred on local streets, 28.8% on collectors, and 47.4% on either principal or minor arterials. It is expected that the breakdown of fatal and serious injury crashes would be even more skewed towards collector and arterial streets due to the higher travel speeds and greater pedestrian crossing distances along those roads. When considering fatal and serious crashes only, the trend was slightly more pronounced with 20.0% of the fatal and serious injury crashes occurring on local streets, 29.3% on collector streets, and roughly 49.8% on arterial streets.

All of the high crash corridors outside the CBD were arterials. Four of the twelve were principal arterials and the remaining were minor arterials. Among the high crash corridors in the CBD, three of the five were collector streets and two were principal arterials.

Table 28: Pedestrian Crashes by Roadway Type

	2005	2006	2007	2008	2009	Total
All Crashes						
Principal Arterial	653	646	625	601	552	3,077
	19.4%	17.3%	17.2%	17.5%	18.0%	17.9%
Minor Arterial	988	1,047	1,060	1,004	987	5,086
	29.3%	28.1%	29.2%	29.3%	32.2%	29.5%
Collector	929	1,148	1,086	923	877	4,963
	27.6%	30.8%	29.9%	26.9%	28.6%	28.8%
Local Road or	778	863	851	888	634	4,014
Street	23.1%	23.2%	23.4%	25.9%	20.7%	23.3%
Interstate	21	20	11	10	19	81
	0.6%	0.5%	0.3%	0.3%	3.8%	0.5%
Total	3,369	3,724	3,633	3,426	3,069	17,221
(Year %)	(19.6%)	(21.6%)	(21.1%)	(19.9%)	(17.8%)	100.0%
Fatal and Serious	Injury Cras	shes				
Principal Arterial	129	121	107	90	92	539
	19.4%	18.9%	19.4%	18.6%	18.5%	19.0%
Minor Arterial	212	192	171	132	167	874
	31.8%	30.0%	31.0%	27.2%	33.6%	30.8%
Collector	181	189	175	140	147	832
	27.2%	29.5%	31.8%	28.9%	29.6%	29.3%
Local Road or	134	131	96	119	87	567
Street	20.1%	20.4%	17.4%	24.5%	17.5%	20.0%
Interstate	10	8	2	4	4	28
	1.5%	1.2%	0.4%	0.8%	0.8%	1.0%
Total	666	641	551	485	497	2,840
(Year %)	(23.5%)	(22.6%)	(19.4%)	(17.1%)	(17.5%)	100.0%

Comparing the crash incidence on each type of roadway to the total length of that type in Chicago revealed that the crash rates were much higher along arterial streets and were very low on local streets. Twenty-three percent of all pedestrian crashes occurred on local streets while 47% occurred on principal or minor arterials. However, local streets account for roughly 78% of overall street miles in Chicago while arterials account for slightly more than 10%. **Figure 26** shows these results.

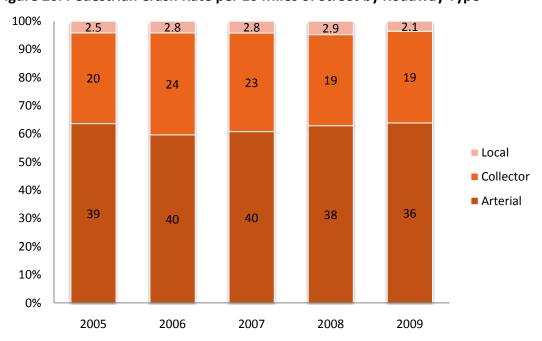


Figure 26: Pedestrian Crash Rate per 10 Miles of Street by Roadway Type

An examination of roadway type by pedestrian age provides a more detailed view of where pedestrians were involved in crashes. While arterials are overrepresented in crashes among all age groups, this analysis reveals some interesting trends. Young pedestrians (0-14) were much more likely to be struck on local roads than all other age groups. Conversely, older pedestrians were more likely to be struck on arterials than on local roads or collectors. The 60-64 age group was the most likely to be struck on arterial or collector streets. (See **Table 29**.) These results are most likely a factor of the travel patterns of the different age groups.

Table 29: Pedestrian Crashes (2005-2009) by Age Group by Roadway Type

	0-4	5-14	15-18	19-29	30-59	60-64		
	yrs	yrs	yrs	yrs	yrs	yrs	65+ yrs	Total
Interstate	0	2	18	22	47	3	5	97
	0.0%	0.1%	1.2%	0.6%	0.7%	0.5%	0.2%	0.5%
Principal Arterial	30	244	263	566	1,369	126	455	3,053
	7.0%	8.4%	17.7%	16.7%	20.4%	22.7%	18.8%	17.1%
Minor Arterial	64	683	445	1,016	2,105	174	764	5,251
	15.0%	23.6%	30.0%	29.9%	31.3%	31.3%	31.6%	29.3%
Collector	84	727	386	1,053	1,980	184	667	5,081
	19.7%	25.1%	26.0%	31.0%	29.4%	33.1%	27.6%	28.4%
Local Road or	238	1,188	352	688	1,126	61	496	4,149
Street	55.7%	41.1%	23.7%	20.3%	16.7%	11.0%	20.5%	23.2%
N/A	11	49	19	51	99	8	31	268
	2.6%	1.7%	1.3%	1.5%	1.5%	1.4%	1.3%	1.5%
Total	427	2,893	1,483	3,396	6,726	556	2,418	17,899
(Age Group %)	(2.4%)	(16.2%)	(8.3%)	(19.0%)	(37.6%)	(3.1%)	(13.5%)	100.0%

#### 7.4 Intersection Geometry

An analysis of pedestrian crashes by intersection geometry was conducted to determine if more complicated intersections had more crashes. Chicago has several diagonal streets that radiate out from the CBD and cut through the city's street grid, creating five and six-leg intersections. At these intersections, pedestrians may cross along the most direct path, which often is not where there are marked crosswalks. Crossing along these paths also means that the pedestrian has farther to travel between sidewalks and is in the road for a longer period. These intersections also create opportunities for additional turning movements and conflicts.

The analysis was done by first using a spatial join in geographic information systems (GIS) to assign the number of legs to each intersection node. A buffer of 125 feet was used to capture the legs, to remain consistent with the definition of intersection-related crashes. The crashes within that buffer were also assigned to that intersection. Intersections with more than six legs reflect locations such as expressway interchanges and multi-level streets where numerous line segments converge in the GIS database.

**Table 30** on the next page displays the results of this analysis. The distribution of crashes is consistent with the overall distribution of the intersections. In all, two to four-leg intersections accounted for 94.7% of all intersections while five to seven-leg intersections accounted for 4.7%, which is consistent with the breakdown of crashes. Thus, this indicates that the more complicated intersections were not overrepresented in crashes.

**Table 30: Pedestrian Crashes by Intersection Legs** 

	2005	2006	2007	2008	2009	Total	% of Total Intersections
2-4	2,520	2,709	2,697	2,545	2,311	12,782	
	94.6%	94.0%	94.7%	94.1%	94.9%	94.5%	94.7%
5-7	135	150	126	147	114	672	
	5.1%	5.2%	4.4%	5.4%	4.7%	5.0%	4.7%
8-9	6	14	15	10	9	54	
	0.2%	0.5%	0.5%	0.4%	0.4%	0.4%	0.2%
10-12	4	8	9	2	2	25	
	0.2%	0.3%	0.3%	0.1%	0.1%	0.2%	0.3%
Total	2,665	2,881	2,847	2,704	2,436	13,533	
(Year %)	(19.7%)	(21.3%)	(21.0%)	(20.0%)	(18.0%)	100.0%	

#### 7.5 Traffic Control

**Table 31** on the next page shows the proportion of crashes by type of traffic control. These data include all pedestrian crashes, not only those occurring at intersections. Just under 50% of the pedestrian crashes occurred where there was no traffic control. This is down slightly from the 2001-2005 Study, when 55.0% of crashes occurred at uncontrolled locations. The percentage of crashes occurring at traffic signals and stop signs increased slightly from the time period 2001 through 2005, when it was 31.7% and 9.8%, respectively. Between 2005 and 2009, 33.4% occurred at a traffic signal and 11.0% at a stop sign or flashing light.

**Table 31: Pedestrian Crashes by Type of Traffic Control** 

	2005	2006	2007	2008	2009	Total
No Controls	1,708	1,914	1,813	1,642	1,473	8,550
	50.1%	50.6%	49.2%	47.1%	46.9%	48.9%
Traffic Signal	1,155	1,142	1,227	1,204	1,112	5,840
	33.9%	30.2%	33.3%	34.6%	35.4%	33.4%
Stop sign/Flasher	330	458	400	404	339	1,931
	9.7%	12.1%	10.9%	11.6%	10.8%	11.0%
Yield	10	28	20	14	10	82
	0.3%	0.7%	0.5%	0.4%	0.3%	0.5%
Police/Flagman	12	25	19	23	15	94
	0.4%	0.7%	0.5%	0.7%	0.5%	0.5%
RR Crossing Gate	1	3	1	0	0	5
	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Other RR Crossing	0	3	1	0	0	4
	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
School Zone	6	3	3	5	1	18
	0.2%	0.1%	0.1%	0.1%	0.0%	0.1%
No Passing	36	42	1	7	0	86
8	1.1%	1.1%	0.0%	0.2%	0.0%	0.5%
Other Regulatory Sign	4	3	2	3	5	17
	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%
Other Warning Sign	4	4	3	3	11	25
0 41101 111 411 1111 11 11 11 11 11 11 11	0.1%	0.1%	0.1%	0.1%	0.4%	0.1%
Lane Use Marking	17	18	17	12	21	85
20110 000 1-101111115	0.5%	0.5%	0.5%	0.3%	0.7%	0.5%
Other	35	41	45	33	31	185
Outo	1.0%	1.1%	1.2%	0.9%	1.0%	1.1%
Delineators (2008)	0	0	0	0.570	1	1.170
Defineators (2000)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1						
Unknown	88	97	134	134	119	572
	2.6%	2.6%	3.6%	3.8%	3.8%	3.3%
Total	3,406	3,781	3,686	3,484	3,138	17,495
(Year %)	(19.5%)	(21.6%)	(21.1%)	(19.9%)	(17.9%)	100.0%

Without pedestrian exposure data, it is difficult to determine if the crashes occurring at each traffic control type are proportional to the pedestrian volumes at each type. However, traffic signals are common along larger streets and streets with more activity, such as commercial land uses, and therefore it is likely that intersections with traffic signals have higher pedestrian volumes and exposure than intersections with stop signs.

**Table 32** displays the breakdown of only intersection-related crashes by the type of traffic control. This table reveals that 41.7% occurred at traffic signals, 13.6% at stop signs, flashers or yield signs, and 38.6% at uncontrolled locations. These data show that intersection-related crashes were most common at traffic signals, and that a slightly smaller proportion occurred at uncontrolled intersections. The percentage of fatal and serious injury crashes at uncontrolled locations was higher than for overall crashes.

Table 32: Intersection-Related Pedestrian Crashes by Traffic Control

	2005	2006	2007	2008	2009	Total
All Crashes						
Signalized	1,104	1,103	1,198	1,182	1,080	5,667
	41.3%	38.2%	41.9%	43.5%	44.1%	41.7%
No Controls	1,100	1,171	1,100	984	897	5,252
	41.2%	40.5%	38.4%	36.2%	36.6%	38.6%
Stop Sign / Flash-	317	435	386	387	328	1,853
er or Yield	11.9%	15.1%	13.5%	14.2%	13.4%	13.4%
Other	77	107	67	62	52	365
	2.9%	3.7%	2.3%	2.3%	2.1%	2.7%
Unknown / Miss-	73	74	111	105	94	457
ing Data	2.7%	2.6%	3.9%	3.9%	3.8%	3.4%
Total	2,671	2,890	2,862	2,720	2,451	13,594
(Year %)	(19.6%)	(21.3%)	(21.1%)	(20.0%)	(18.0%)	100.0%
Fatal and Serious	Injury Cras	hes				
Signalized	213	188	179	151	167	898
	40.8%	38.4%	41.9%	38.6%	41.7%	40.3%
No Controls	239	210	166	170	148	933
	45.8%	42.9%	38.9%	43.5%	36.9%	41.8%
Stop Sign / Flash-	47	68	57	52	58	282
er or Yield	9.0%	13.9%	13.4%	13.3%	14.5%	12.6%
Other	12	16	11	9	11	59
	2.3%	3.3%	2.6%	2.3%	2.7%	2.6%
Unknown / Miss-	11	8	14	9	17	59
ing Data	2.1%	1.6%	3.3%	2.3%	4.2%	2.6%
Total	522	490	427	391	401	2,231
(Year %)	(23.4%)	(22.0%)	(19.1%)	(17.5%)	(18.0%)	100.0%

## 7.6 Vehicle Type and Use

Vehicle type and vehicle use data were derived from the vehicle files and represent all vehicles involved in crashes in which a pedestrian was struck. 84.8% of vehicles involved in pedestrian crashes were passenger cars, van/minivans, or sport utility vehicles. Crash involvement of buses and trucks was relatively low, accounting for only 7.9% of pedestrian crashes. **Table 33** shows these data. Nationally, buses account for roughly 1.5% and trucks account for roughly 46% of fatal pedestrian crashes.

**Table 33: Pedestrian Crashes by Vehicle Type** 

	2005	2006	2007	2008	2009	Total
Passenger Car	2,468	2,709	2,545	2,378	2,138	12,238
	71.4%	70.7%	67.9%	67.5%	67.1%	68.9%
Van/Minivan	285	312	291	300	281	1,469
	8.2%	8.1%	7.8%	8.5%	8.8%	8.3%
Sport Utility Vehicle	187	265	293	263	265	1,273
(SUV)	5.4%	6.9%	7.8%	7.5%	8.3%	7.2%
Pickup Truck	116	122	164	110	122	634
	3.4%	3.2%	4.4%	3.1%	3.8%	3.6%
Bus over 15 Passengers	79	75	84	91	63	392
	2.3%	2.0%	2.2%	2.6%	2.0%	2.2%
Truck-Single Unit	40	54	44	48	43	229
	1.2%	1.4%	1.2%	1.4%	1.3%	1.3%
Tractor w/Semi-trailer	14	18	18	18	14	82
	0.4%	0.5%	0.5%	0.5%	0.4%	0.5%
Bus up to 15 Passen-	4	15	13	7	7	46
gers	0.1%	0.4%	0.3%	0.2%	0.2%	0.3%
Motorcycle	3	8	9	14	9	43
	0.1%	0.2%	0.2%	0.4%	0.3%	0.2%
Tractor w/o Semi-	3	1	4	1	3	12
trailer	0.1%	0.0%	0.1%	0.0%	0.1%	0.1%
Motor Driven Cycle	7	4	1	8	5	25
	0.2%	0.1%	0.0%	0.2%	0.2%	0.1%
All-terrain Vehicle	1	3	0	1	1	6
(ATV)	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Other Vehicle with	1	1	1	2	0	5
Trailer	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Farm Equipment	0	0	0	1	0	1
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other	74	62	87	90	66	379
	2.1%	1.6%	2.3%	2.6%	2.1%	2.1%
Unknown/NA	175	185	195	192	171	918
	5.1%	4.8%	5.2%	5.4%	5.4%	5.2%
Total	3,457	3,834	3,749	3,524	3,188	17,752

Vehicle type does not give an indication of whether the vehicle is a private vehicle, a taxi, or others. Therefore, the crashes were also considered by vehicle use (see **Table 34**). Personal use accounted for 63.1% of the crashes, however 20.3% of the crashes involved unknown vehicle

uses. With such a high percentage of unknown, it is difficult to draw any conclusions from these data. Among the known vehicles, personal use accounted for 79.3% of the crashes and taxis accounted for the second largest percentage, at 6.7%. This is lower than the proportion of taxi involvement found in the NYC Study, where taxis were involved in 13.5% of crashes.

These data show that construction and maintenance vehicles accounted for 0.6% of the crashes. Similarly, pedestrians struck in work-zone related crashes amounted to 1.0% of crashes, which is substantially higher than the nationwide statistic of 0.2%.

**Table 34: Pedestrian Crashes by Vehicle Use** 

	2005	2006	2007	2008	2009	Total
Personal	2,232	2,442	2,409	2,154	1,975	11,212
	64.5%	63.7%	64.3%	61.1%	62.0%	63.1%
Taxi/For Hire	159	180	201	207	196	943
	4.6%	4.7%	5.4%	5.9%	6.1%	5.3%
Not in Use	103	125	102	100	105	535
	3.0%	3.3%	2.7%	2.8%	3.3%	3.0%
	52	76	70	66	53	317
Chicago Transit Authority	1.5%	2.0%	1.9%	1.9%	1.7%	1.8%
Police	37	29	27	24	32	149
	1.1%	0.8%	0.7%	0.7%	1.0%	0.8%
Commercial- Single Unit	27	40	24	26	16	133
	0.8%	1.0%	0.6%	0.7%	0.5%	0.7%
Construction/Maintenance	28	15	20	19	28	110
, 	0.8%	0.4%	0.5%	0.5%	0.9%	0.6%
Other Transit	11	12	24	25	19	91
	0.3%	0.3%	0.6%	0.7%	0.6%	0.5%
Commercial- Multi-unit	8	13	9	16	11	57
	0.2%	0.3%	0.2%	0.5%	0.3%	0.3%
Mass Transit	15	7	21	7	3	53
	0.4%	0.2%	0.6%	0.2%	0.1%	0.3%
School Bus	13	6	12	9	5	45
	0.4%	0.2%	0.3%	0.3%	0.2%	0.3%
Tow Truck	10	5	6	9	14	44
	0.3%	0.1%	0.2%	0.3%	0.4%	0.2%
State-owned	3	3	1	0	5	12
	0.1%	0.1%	0.0%	0.0%	0.2%	0.1%
Ambulance	4	2	3	1	1	11
	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%
Driver Education	4	2	1	2	1	10
	0.1%	0.1%	0.0%	0.1%	0.0%	0.1%
Fire	0	3	0	2	1	6
	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%
Other	86	80	94	85	72	414
	2.5%	2.1%	2.5%	2.4%	2.3%	2.3%
	4.370					
Unknown/NA			725	772	651	3,611
Unknown/NA	669 19.3%	794 20.7%	725 19.3%	772 21.9%	651 20.4%	3,611 20.3%

Comparing the vehicle use in the high crash corridors identified in the CBD and citywide indicates that there was significantly more taxi involvement in crashes in the CBD. **Figure 27** shows that 33.6% of the crashes along the high crash corridors in the CBD involved taxis, as compared to 1.2% along the high crash corridors outside the CBD and compared to 5.3% of all crashes during this time period citywide. The overall split of vehicle type is not known, so it is difficult to determine if taxis are overrepresented among crashes in the CBD.

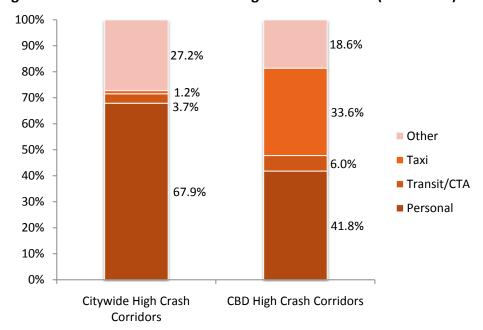


Figure 27: Vehicle Use in Crashes in High Crash Corridors (2005-2009)

#### 8 BEHAVIORAL

The crash reports were analyzed to identify behaviors contributing to pedestrian crashes. The analyses also attempted to identify contributing factors to the crash. Hit and run crashes, motorist physical condition, pedestrian visibility and motorist and pedestrian actions and locations were analyzed for all crashes and for fatal and serious injury crashes.

### 8.1 Hit and Run Crashes

Between 2005 and 2009, 5,534 pedestrian crashes involved hit and run drivers. This amounts to one-third of all pedestrian crashes over that time period, as shown in **Figure 28**. This is consistent with the results from the 2001-2005 Study.

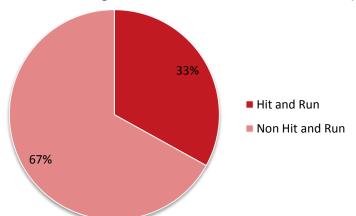


Figure 28: Percentage of Hit and Run Pedestrian Crashes (2005-2009)

Over the five years, hit and run crashes amounted to 3,683 pedestrian fatalities and injuries, an average of 2 per day. This includes pedestrian fatalities and injuries coded as incapacitating injuries (A) and non-incapacitating injuries (B).

Hit and run crashes accounted for 41% of the pedestrian fatalities (see **Figure 29**). By comparison, hit and run crashes accounted for 21.5% of pedestrian fatalities in New York City and nationally account for roughly 20% of pedestrian fatalities<sup>11</sup>.

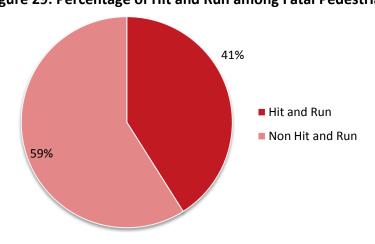


Figure 29: Percentage of Hit and Run among Fatal Pedestrian Crashes (2005-2009)

<sup>&</sup>lt;sup>11</sup> National Highway Traffic Safety Administration, "National Pedestrian Crash Report," US Department of Transportation, June 2008.

Community areas and wards with the highest incidence of hit and run crashes during the five-year period are listed in **Table 35** and **Table 36**.

Table 35: Chicago Community Areas with Top Hit and Run Pedestrian Crashes (2005-2009)

Con	nmunity Area	Hit and Run Crashes
25	Austin	404
8	Near North Side	228
23	Humboldt Park	204
32	Loop	193
67	West Englewood	176
24	West Town	167
68	Englewood	162
28	Near West Side	160
22	Logan Square	158
19	Belmont Cragin	155
30	South Lawndale	155

Table 36: Wards with Top Hit and Run Pedestrian Crashes (2005-2009)

	Hit and Run
Ward	Crashes
28	347
42	310
2	237
24	234
17	216
27	207
6	198
20	159
37	154
16	150

### 8.2 Speed

The speed of a motor vehicle at the time of the crash was not available in the crash data. However, average weekday speed data along selected roadways were provided by CDOT. The rates of fatal and serious injury pedestrian crashes to all pedestrian crashes along these streets were calculated and compared to the average speed. These findings are listed on the next page in **Table 37** and reveal that pedestrians struck by vehicles at less than 19 mph are significantly less likely to be killed or seriously injured. As the average speed increased, the fatal and serious injury rate also increased.

Table 37: Fatal (K) and Serious Injury (A) Rates (2005-2009) by Average Speed

Speed	Total	K&A	K&A
(mph)	crashes	crashes	rate
10-19	971	133	13.7%
20-24	3,731	677	18.1%
25-29	3,212	601	18.7%
30-34	428	87	20.3%
35+	53	12	22.6%

## 8.3 Motorist Physical Condition

**Table 38** shows apparent physical condition of motorists that struck pedestrians between 2005 and 2009. These data show that less than 1% of drivers involved in all crashes were alcohol impaired or had been drinking. One caveat to concluding that alcohol was not a major factor in crashes is the high proportion of hit and run crashes in Chicago. It is possible that drivers who had been drinking would be more likely to flee the scene of a crash than those who had not been drinking.

These data also indicate that the physical condition of nearly 36% of the motorists was "other/unknown."

**Table 38: Motorist Apparent Physical Condition** 

	2005	2006	2007	2008	2009	Total
Normal	2,154	2,342	2,387	2,185	1,991	11,059
	63.3%	62.1%	64.8%	62.7%	63.6%	63.3%
Alcohol Impaired	27	23	21	16	27	114
	0.8%	0.6%	0.6%	0.5%	0.9%	0.7%
Had Been Drinking	6	7	4	4	7	28
	0.2%	0.2%	0.1%	0.1%	0.2%	0.2%
Drug Impaired	1	2	6	3	4	16
	0.0%	0.1%	0.2%	0.1%	0.1%	0.1%
Fatigued	3	1	0	4	3	11
	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%
Illness	2	0	3	0	3	8
	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%
Asleep/Fainted	2	1	1	1	1	6
	0.4%	0.2%	0.2%	0.2%	0.2%	0.0%
Medicated	0	0	0	1	0	1
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other/Unknown	1,210	1,397	1,261	1,269	1,093	6,230
	35.5%	37.0%	34.2%	36.4%	34.9%	35.7%
Total	3,405	3,773	3,683	3,483	3,129	17,473
(Year %)	(19.5%)	(21.6%)	(21.1%)	(19.9%)	(17.9%)	100.0%

**Table 39** shows the motorist's physical condition for fatal and serious injury crashes. These data show a slightly higher percentage of the motorists were under normal condition and 1.9% were alcohol impaired or had been drinking. Again, these data show a large proportion of other/unknown physical condition. Therefore, it is difficult to determine the true breakdown of motorist condition.

**Table 39: Motorist Apparent Physical Condition in Fatal and Serious Injury Pedestrian Crashes** 

	2005	2006	2007	2008	2009	Total
Normal	424	420	386	340	348	1,918
	63.3%	64.5%	68.3%	68.4%	67.4%	66.2%
Alcohol Impaired	13	8	7	7	10	45
	1.9%	1.2%	1.2%	1.4%	1.9%	1.6%
	2	1	2	2	3	10
Had Been Drinking	0.3%	0.2%	0.4%	0.4%	0.6%	0.3%
Drug Impaired	0	1	2	3	1	7
	0.0%	1.8%	3.6%	5.4%	1.8%	0.2%
Asleep/Fainted	0	1	0	0	0	1
	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%
Fatigued	0	0	0	0	0	0
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Illness	0	0	1	0	0	1
	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
Medicated	0	0	0	1	0	1
	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%
Other/Unknown	231	220	167	144	154	916
•	34.5%	33.8%	29.6%	29.0%	29.8%	31.6%
Total	670	651	565	497	516	2,899
(Year %)	(23.1%)	(22.5%)	(19.5%)	(17.1%)	(17.8%)	100.0%

## 8.4 Pedestrian Conspicuity

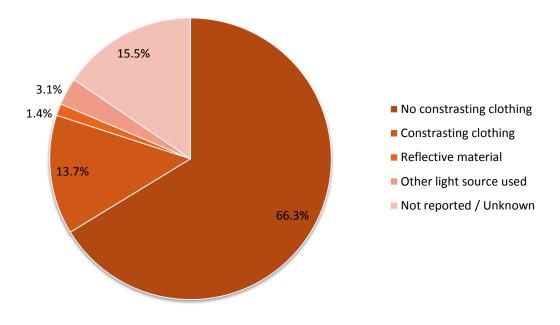
**Table 40** shows the pedestrian crashes by the visibility of the pedestrian. These data show that 61.5% of pedestrians were not reported as wearing contrasting clothing.

Table 40: Pedestrian Crashes by Pedestrian Conspicuity

	2005	2006	2007	2008	2009	Total
No Constrasting	2,022	2,419	2,401	2,310	2,147	11,299
Clothing	56.3%	61.0%	62.0%	62.9%	65.5%	61.5%
Constrasting Cloth-	666	603	623	600	550	3,042
ing	18.5%	15.2%	16.1%	16.3%	16.8%	16.6%
Reflective Material	49	71	68	68	61	317
	1.4%	1.8%	1.8%	1.9%	1.9%	1.7%
Other Light Source	118	131	130	133	107	619
used	3.3%	3.3%	3.4%	3.6%	3.3%	3.4%
Not Reported/	737	743	648	559	412	3,099
Unknown	20.5%	18.7%	16.7%	15.2%	12.6%	16.9%
Total	3,592	3,967	3,870	3,670	3,277	18,376
(Year %)	(19.5%)	(21.6%)	(21.1%)	(20.0%)	(17.8%)	100.0%

**Figure 30** shows these data for crashes that occurred in dark conditions. This includes crashes that were recorded as having occurred under light conditions of "darkness" or "darkness, lighted road." These data indicate that only a small percentage of pedestrians struck were reported as wearing reflective material (1.4%) or were carrying a light source (3.1%). The use of these materials has been shown to increase a pedestrian's visibility.

Figure 30: Pedestrian Crashes (2005-2009) by Pedestrian Conspicuity in Dark Conditions



#### 8.5 Vehicle Maneuvers

**Table 41** provides data on crashes by vehicle maneuver. These data show that just over 25% of crashes involved a turning maneuver, slightly less than 50% involved a straight ahead maneuver, and 5% a backing maneuver. Left-turning motorists hit twice as many pedestrians as right-turning motorists. Very few crashes involved a motorist turning right on red.

The proportion of vehicles going straight ahead at the time of a crash decreased over the five-year period and from the 2001-2005 Study, when these maneuvers accounted for 60% of the crashes. Meanwhile, the proportions of vehicles turning left and turning right have increased since the previous study.

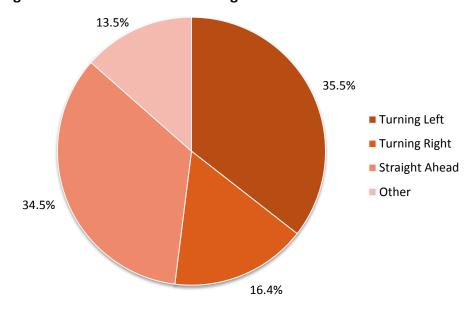
**Table 41: Pedestrian Crashes by Vehicle Maneuver** 

	2005	2006	2007	2008	2009	Total
Straight Ahead	1,775	2,030	1,882	1,655	1,506	8,848
	51.3%	52.9%	50.2%	47.0%	47.2%	49.8%
Turning Left	545	596	630	594	562	2,927
_	15.7%	15.5%	16.8%	16.9%	17.6%	16.5%
Unknown/NA	280	283	309	296	221	1,389
	8.1%	7.4%	8.2%	8.4%	6.9%	7.8%
Turning Right	267	267	296	301	235	1,366
	7.7%	7.0%	7.9%	8.5%	7.4%	7.7%
Backing	154	169	167	186	155	831
-	4.4%	4.4%	4.5%	5.3%	4.9%	4.7%
Other	67	72	75	68	71	353
	1.9%	1.9%	2.0%	1.9%	2.2%	2.0%
Slow/Stop in traffic	64	72	62	71	63	332
, -	1.8%	1.9%	1.7%	2.0%	2.0%	1.9%
Slow/Stop left turn	49	67	51	83	81	331
•	1.4%	1.7%	1.4%	2.4%	2.5%	1.9%
Passing/Overtaking	46	46	44	34	38	208
<i>-</i> , -	1.3%	1.2%	1.2%	1.0%	1.2%	1.2%
Starting in Traffic	41	28	38	43	37	187
-	1.2%	0.7%	1.0%	1.2%	1.2%	1.1%
Slow/Stop Right Turn	22	36	16	38	48	160
,	0.6%	0.9%	0.4%	1.1%	1.5%	0.9%
Slow/Stop Load-Unload	25	32	30	22	36	145
, -	0.7%	0.8%	0.8%	0.6%	1.1%	0.8%
Skidding/Control Loss	25	18	29	21	29	122
<i>5.</i>	0.7%	0.5%	0.8%	0.6%	0.9%	0.7%
Avoiding Vehicles/Objects	22	23	25	14	17	101
J , ,	0.6%	0.6%	0.7%	0.4%	0.5%	0.6%
Enter from Drive/Alley	21	17	16	26	17	97
, ,	0.6%	0.4%	0.4%	0.7%	0.5%	0.5%
Entering Traffic Lane from	19	15	18	21	19	92
Parking	0.5%	0.4%	0.5%	0.6%	0.6%	0.5%
Changing Lanes	11	17	7	10	12	57
Changing Banes	0.3%	0.4%	0.2%	0.3%	0.4%	0.3%

	2005	2006	2007	2008	2009	Total
Driving Wrong Way	8	8	14	10	12	52
	0.2%	0.2%	0.4%	0.3%	0.4%	0.3%
U-turn	3	5	11	5	7	31
	0.1%	0.1%	0.3%	0.1%	0.2%	0.2%
Leaving Traffic Lane to Park	2	7	10	6	5	30
	0.1%	0.2%	0.3%	0.2%	0.2%	0.2%
Parked	3	8	5	7	5	28
	0.1%	0.2%	0.1%	0.2%	0.2%	0.2%
Turning on Red	4	10	3	6	4	27
	0.1%	0.3%	0.1%	0.2%	0.1%	0.2%
Merging	4	1	4	2	2	13
	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
Parked in Traffic Lane	4	3	4	2	0	13
	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%
Driverless	1	4	2	2	1	10
	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%
Negotiating a Curve	0	0	0	1	4	5
	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Diverging	0	0	1	0	1	2
-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	3,462	3,834	3,749	3,524	3,188	17,757
(Year %)	(19.5%)	(21.6%)	(21.1%)	(19.8%)	(18.0%)	100.0%

**Figure 31** displays an analysis of turning maneuvers in pedestrian crashes that occurred at signalized intersections. Left-turning vehicles were involved in 35.5% of crashes and right-turning vehicles in 16.4%, for a total of just over 50% of crashes involving turns. Vehicles going straight were involved in 34.5% of the crashes and the remaining 13.5% involved other or unknown actions. Again, these proportions of turning vehicles are higher than the 2001-2005 Study.

Figure 31: Vehicle Maneuvers at Signalized Intersection Pedestrian Crashes (2005-2009)



In an analysis of turning vehicles involved in crashes in the high crash corridors in the CBD compared to the high crash corridors outside the CBD, the CBD crashes were found to have a higher proportion of crashes (65.6%) involving turning vehicles. 48.3% of the crashes involved left turns in the CBD versus 31.9% outside of the CBD. Right turning vehicles accounted for 17.3% and 16.2% of the crashes inside and outside the CBD, respectively.

#### 8.6 Motorist Action

**Table 42** shows pedestrian crashes by motorist action. "Failure to yield" to pedestrians was the most common action cited as a contributing factor. It accounted for 36.4% of all crashes. Similar to other analyses, the category of unknown has a high proportion, likely due to the high rate of hit and run crashes. When accounting for only the known factors, motorists' failure to yield to pedestrians accounts for 48.3% of all crashes.

**Table 42: Motorist Action** 

	2005	2006	2007	2008	2009	Total
Failed to Yield	1,238	1,296	1,325	1,287	1,207	6,353
	36.4%	34.3%	36.0%	37.0%	38.6%	36.4%
None	637	882	762	657	553	3,491
	18.7%	23.4%	20.7%	18.9%	17.7%	20.0%
Improper Backing	103	75	68	73	62	381
	3.0%	2.0%	1.8%	2.1%	2.0%	2.2%
Too Fast for Conditions	64	66	60	47	64	301
	1.9%	1.7%	1.6%	1.3%	2.0%	1.7%
Disregarded Control De-	47	65	56	57	47	272
vices	1.4%	1.7%	1.5%	1.6%	1.5%	1.6%
Improper Turn	20	29	25	33	16	123
	0.6%	0.8%	0.7%	0.9%	0.5%	0.7%
Improper Passing	13	15	21	13	12	74
	0.4%	0.4%	0.6%	0.4%	0.4%	0.4%
Wrong Way/Side	5	11	11	9	9	45
J 7,	0.1%	0.3%	0.3%	0.3%	0.3%	0.3%
Followed too Closely	5	4	6	7	6	28
	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%
Improper Lane Change	12	8	7	5	11	43
	0.4%	0.2%	0.2%	0.1%	0.4%	0.2%
Emergency Vehicle on						
Call	8	3	1	3	6	21
	0.2%	0.1%	0.0%	0.1%	0.2%	0.1%
Improper Parking	6	4	1	4	5	20
	1.1%	0.7%	0.2%	0.7%	0.9%	0.1%
Evading Police Vehicle	1	6	4	3	4	18
	0.0%	0.2%	0.1%	0.1%	0.1%	0.1%
Stopped School Bus	4	2	2	0	2	10
	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%
License Restrictions	1	3	1	1	0	6
	1.8%	5.4%	1.8%	1.8%	0.0%	0.0%

	2005	2006	2007	2008	2009	Total
Other	417	395	416	374	364	1,966
	12.2%	10.5%	11.3%	10.7%	11.6%	11.3%
Unknown	824	910	917	910	761	4,322
	24.2%	24.1%	24.9%	26.1%	24.3%	24.7%
Total	3,405	3,774	3,683	3,483	3,129	17,474
(Year %)	(19.5%)	(21.6%)	(21.1%)	(19.9%)	(17.9%)	100.0%

**Table 43** on the following page shows the motorist actions in fatal and serious injury crashes, with similar results. "Failure to yield" accounted for 37.5% of the crashes, but when excluding the crashes where the motorist action was unknown, failure to yield increased to 47.6% of the crashes. The next most common motorist action was "none," at 19.9%, followed by "too fast for conditions," at 3.0%. The proportion of the "too fast for conditions" action was nearly double for the fatal and serious injury crashes, as compared to all pedestrian crashes.

**Table 43: Motorist Action in Fatal and Serious Injury Pedestrian Crashes** 

	2005	2006	2007	2008	2009	Total
Failed to Yield	247	232	212	176	219	1,086
	36.9%	35.6%	37.5%	35.5%	42.4%	37.5%
None	126	151	107	105	88	577
	18.8%	23.2%	18.9%	21.2%	17.1%	19.9%
Too Fast for Conditions	23	21	16	13	14	87
	3.4%	3.2%	2.8%	2.6%	2.7%	3.0%
Disregarded Control De-	18	14	16	11	7	66
vices	2.7%	2.2%	2.8%	2.2%	1.4%	2.3%
Improper Backing	19	5	10	12	10	56
	2.8%	0.8%	1.8%	2.4%	1.9%	1.9%
Improper Turn	5	4	5	8	2	24
• •	0.7%	0.6%	0.9%	1.6%	0.4%	0.8%
Wrong Way/Side	2	3	4	2	2	13
5 7,	0.3%	0.5%	0.7%	0.4%	0.4%	0.4%
Improper Passing	2	1	3	2	1	9
	0.3%	0.2%	0.5%	0.4%	0.2%	0.3%
Improper Lane Change	3	1	1	1	2	8
L -L O	0.4%	0.2%	0.2%	0.2%	0.4%	0.3%
Followed Too Closely	1	0	2	2	1	6
,	0.1%	0.0%	0.4%	0.4%	0.2%	0.2%
Improper Parking	1	0	1	2	1	5
r -r - o	0.2%	0.0%	0.2%	0.4%	0.2%	0.2%
Evading Police Vehicle	0	2	2	0	0	4
	0.0%	0.3%	0.4%	0.0%	0.0%	0.1%
Stopped School Bus	1	1	1	0	0	3
	0.1%	0.2%	0.2%	0.0%	0.0%	0.1%
Emergency Vehicle on	1	1	0	0.070	1	3
Call	0.1%	0.2%	0.0%	0.0%	0.2%	0.1%
License Restrictions	1	1	0	0.070	0	2
2.0000 1000110110110	1.8%	1.8%	0.0%	0.0%	0.0%	0.1%
Other	81	63	70	54	63	331
	12.1%	9.7%	12.4%	10.9%	12.2%	11.4%
Unknown	139	151	115	108	105	618
O III WIII WIII	20.7%	23.2%	20.4%	21.8%	20.3%	21.3%
Total	670	651	565	496	516	2,898
(Year %)	(23.1%)	(22.5%)	(19.5%)	(17.1%)	(17.8%)	100.0%
(Icai 70)	(40.170)	(44.570)	(17.570)	(1/.1/0)	(17.070)	100.0 70

#### 8.7 Pedestrian Location

**Table 44** shows that 42.9% of pedestrians were struck "In roadway." Thirty-two percent of pedestrian crashes occurred in crosswalks with left and right turns accounting for 25%. The 2001-2005 Study indicated that 54.8% of pedestrians were in the roadway at the time of the crash, representing a large drop between the two studies; however, the percent of pedestrians in the crosswalk was consistent.

**Table 44: Pedestrian Crashes by Location of Pedestrian** 

	2005	2006	2007	2008	2009	Total
In Roadway	1,488	1,750	1,738	1,552	1,349	7,877
	41.4%	44.1%	44.9%	42.3%	41.2%	42.9%
In Crosswalk	1,039	1,231	1,208	1,268	1,162	5,908
	28.9%	31.0%	31.2%	34.6%	35.5%	32.2%
Not in Available Cross-	195	187	157	160	172	871
walk	5.4%	4.7%	4.1%	4.4%	5.2%	4.7%
Crosswalk not Available	50	48	50	39	40	227
	1.4%	1.2%	1.3%	1.1%	1.2%	1.2%
Driveway Access	33	47	45	56	44	225
	0.9%	1.2%	1.2%	1.5%	1.3%	1.2%
Not in Roadway	107	158	124	124	123	636
	3.0%	4.0%	3.2%	3.4%	3.8%	3.5%
Bikeway	0	0	1	0	4	5
	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Unknown/NA/	680	546	547	471	383	2,627
Missing Data	18.9%	13.8%	14.1%	12.8%	11.7%	14.3%
Total	3,592	3,967	3,870	3,670	3,277	18,376
(Year %)	(19.6%)	(21.6%)	(21.1%)	(20.0%)	(17.8%)	100.0%

The location of pedestrians involved in crashes varied inside and outside the CBD. Pedestrian location was compared for crashes in the high crash corridors identified within the CBD and citywide. Pedestrians in the CBD corridors were much more likely to be in the crosswalk, at 56%, than pedestrians overall. The pedestrian locations in high crash corridors outside the CBD were similar to the citywide results. **Figure 32** on the next page shows these results.

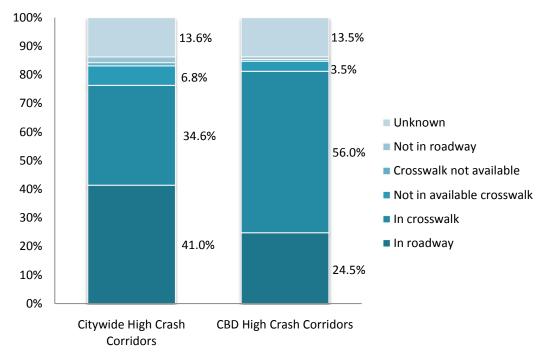


Figure 32: Pedestrian Location in Crashes in High Crash Corridors (2005-2009)

A breakdown by age indicates that pedestrians 60 and over were more likely to be struck in a crosswalk and less likely to be struck in the roadway. These data also show that children aged 0 to 14 were more likely to be struck in the roadway and less likely to be struck in a crosswalk. Figure 33 displays these data. Similar results were found in the 2001-2005 Study.

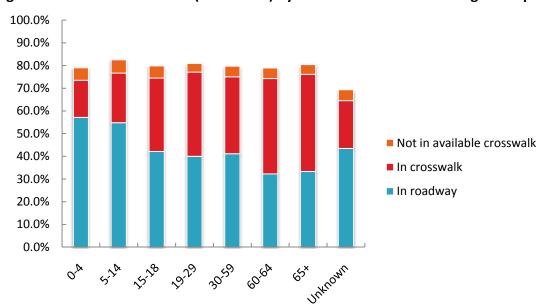


Figure 33: Pedestrian Crashes (2005-2009) by Pedestrian Location and Age Group

**Table 45** shows the pedestrian location data broken down by whether the crash was intersection-related. This indicates that the majority of pedestrians who were struck in a crosswalk were at an intersection. Pedestrians were also more likely to be in the roadway in non-intersection related crashes.

Table 45: Pedestrian Location by Intersection-Related Crash (2005-2009)

	Intersection- Related	Not Intersection- Related	Total
	5,147	2,730	7,877
In Roadway	37.9%	57.1%	42.9%
	5,472	436	5,908
In Crosswalk	40.3%	9.1%	32.2%
Not in Available	623	248	871
Crosswalk	4.6%	5.2%	4.7%
Crosswalk not	169	58	227
Available	1.2%	1.2%	1.2%
	114	111	225
Driveway Access	0.8%	2.3%	1.2%
	279	357	636
Not in Roadway	2.1%	7.5%	3.5%
	4	1	5
Bikeway	0.0%	0.0%	0.0%
	1,786	841	2,627
Unknown	13.1%	17.6%	14.3%
	13,594	4,782	18,376
Total	74.0%	26.0%	100.0%

#### 8.8 Pedestrian Action

**Table 46** on the following page shows the breakdown of pedestrian action prior to a crash for all crashes. These data indicate that 23.3% of pedestrians were struck while crossing with the signal and 8.4% were struck while crossing against the signal. While the percentage of pedestrians crossing with the signal is similar to that found in the 2001-2005 Study, the percentage of pedestrians crossing against the signal has declined. In the previous report, it was found to be 13.4%.

**Table 46: Pedestrian Action Prior to Crash** 

	2005	2006	2007	2008	2009	Total
Crossing With Signal	712	899	918	915	795	4,239
	20.7%	22.7%	23.7%	24.9%	24.3%	23.3%
Other	629	745	746	687	590	3,397
	18.3%	18.8%	19.3%	18.7%	18.0%	18.6%
Crossing Against Signal	309	325	315	304	271	1,524
	9.0%	8.2%	8.1%	8.3%	8.3%	8.4%
Standing in Roadway	234	242	224	213	181	1,094
	6.8%	6.1%	5.8%	5.8%	5.5%	6.0%
Entering/Leaving/Crossing Unspeci-	212	250	219	202	210	1,093
fied Location	6.2%	6.3%	5.7%	5.5%	6.4%	6.0%
Walking/Riding with Traffic	199	236	245	231	173	1,084
	5.8%	5.9%	6.3%	6.3%	5.3%	5.9%
Walking Riding Against Traffic	180	225	247	184	161	997
	5.2%	5.7%	6.4%	5.0%	4.9%	5.5%
Playing in Roadway	123	137	118	81	61	520
	3.6%	3.5%	3.0%	2.2%	1.9%	2.9%
None	62	97	66	77	75	377
	1.8%	2.4%	1.7%	2.1%	2.3%	2.1%
Working in Roadway	38	77	59	56	45	275
	1.1%	1.9%	1.5%	1.5%	1.4%	1.5%
Entering/Leaving/Crossing Vehicle	48	45	43	41	45	222
	1.4%	1.1%	1.1%	1.1%	1.4%	1.2%
Enter from Drive/Alley	36	52	34	41	36	199
	1.0%	1.3%	0.9%	1.1%	1.1%	1.1%
Turning Left	3	14	17	11	9	54
	0.1%	0.4%	0.4%	0.3%	0.3%	0.3%
Turning Right	8	7	13	8	11	47
	0.2%	0.2%	0.3%	0.2%	0.3%	0.3%
Playing/Working on Vehicle	17	8	6	5	7	43
	0.5%	0.2%	0.2%	0.1%	0.2%	0.2%
Intoxicating Ped/Pedal	0	0	0	0	41	41
	0.0%	0.0%	0.0%	0.0%	1.3%	0.2%
Waiting for Schoolbus	4	9	4	6	5	28
	0.1%	0.2%	0.1%	0.2%	0.2%	0.2%
Walking/Riding To/from Disabled	3	0	6	7	4	20
Vehicle	0.1%	0.0%	0.2%	0.2%	0.1%	0.1%
	4	3	4	1	3	15
Entering/Leaving/Crossing/Schoolbus	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%
Unknown	618	596	586	600	554	2,954
	17.9%	15.0%	15.1%	16.3%	16.9%	16.2%
Total	3,439	3,967	3,870	3,670	3,277	18,223
(Year %)	(18.9%)	(21.8%)	(21.2%)	(20.1%)	(18.0%)	100.0%

In looking at crashes specifically at signalized intersections, 48.8% of pedestrians were crossing with the signal while 16.4% were crossing against the signal. (See **Table 47**.) Within the CBD, pedestrians were more likely to be struck while crossing with the signal, at 58.7%, compared to 46% at signalized intersection crashes outside of the CBD. These findings support the pedestrian location results that pedestrians in the CBD were more likely to be in a crosswalk.

**Table 47: Pedestrian Action at Signalized Intersection Pedestrian Crashes** 

	2005	2006	2007	2008	2009	Total
Crossing with Signal	523	566	628	639	565	2,921
	44.3%	48.4%	50.2%	51.3%	49.7%	48.8%
Crossing against signal	208	198	212	186	175	979
	17.6%	16.9%	16.9%	14.9%	15.4%	16.4%
Walking with traffic	71	71	79	69	59	349
	6.0%	6.1%	6.3%	5.5%	5.2%	5.8%
Other action	70	68	72	58	58	326
	5.9%	5.8%	5.8%	4.7%	5.1%	5.4%
Walking against traffic	41	38	56	44	37	216
	3.5%	3.3%	4.5%	3.5%	3.3%	3.6%
Standing in roadway	19	24	21	31	21	116
	1.6%	2.1%	1.7%	2.5%	1.8%	1.9%
Entering/leaving/crossing not at	14	27	14	18	20	93
intersection	1.2%	2.3%	1.1%	1.4%	1.8%	1.6%
Working in roadway	4	14	13	11	5	47
	0.3%	1.2%	1.0%	0.9%	0.4%	0.8%
No action	8	11	5	8	7	39
	0.7%	0.9%	0.4%	0.6%	0.6%	0.7%
Playing in roadway	10	1	8	5	4	28
	0.8%	0.1%	0.6%	0.4%	0.4%	0.5%
Turning left	1	6	7	4	5	23
	0.1%	0.5%	0.6%	0.3%	0.4%	0.4%
Turning right	3	2	6	4	6	21
	0.3%	0.2%	0.5%	0.3%	0.5%	0.4%
Entering/leaving/crossing	1	1	7	4	7	20
parked vehicle	0.1%	0.1%	0.6%	0.3%	0.6%	0.3%
Waiting for school bus	1	6	1	1	1	10
	0.1%	0.5%	0.1%	0.1%	0.1%	0.2%
Intoxicated pedestrian	0	0	0	0	4	4
<u>-</u>	0.0%	0.0%	0.0%	0.0%	0.4%	0.1%
				_	_	
Enter from drive/alley	0	1	1	0	0	2

City of Chicago 2011 Pedestrian Crash Analysis

## **Technical Report**

	2005	2006	2007	2008	2009	Total
Entering/leaving/crossing	0	1	1	0	0	2
school bus	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
Playing/working on vehicle	0	0	0	1	1	2
	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%
Unknown/NA	167	134	121	162	161	745
	14.2%	11.5%	9.7%	13.0%	14.2%	12.5%
Total	1,180	1,169	1,252	1,245	1,136	5,982
(Year %)	(19.7%)	(19.5%)	(20.9%)	(20.8%)	(19.0%)	100.0%

## **APPENDIX A**

# Illinois Department of Transportation (IDOT) Crash File Codes

**IDOT Vehicle File Codes** 

**IDOT Person File Codes** 

2001 բ	resent Crash files						
Field	2004-2009 fields					2001-2003 fields	
number	Field name	Туре	Format	Example	Prior name	Field names	Comments
1	Casenum	Text			CASENUM	Same	
2	CrashID	Numeric			COLINETY/	NA Same	For internal use only.
3	County code	Numeric			COUNTY		
5	Crash Year	Text			CASEYR	Same	
5 6		Numeric Numeric				Same Same	
7	Crash day Nbr of Vehicles	Numeric			NUMVEH	Same	
8	Day of Week	Numeric			WEEKDAY	Same	
	Hour Veek	Numeric			HOUR	Same	
10	City Code	Numeric			CITY	Same	
	City Class code	Numeric			0111	Same	
	Township	Numeric			TOWNSHIP	Same	
13		Numeric			COLTYPE	Same	
14	Total killed	Numeric			TOT KILL	Same	
15	Total injured	Numeric			TOT_INJ	Same	
16	No injuries	Numeric			TOT_SEV0	Same	
17	A injuries	Numeric			TOT_SEV1	Same	
18	B injuries	Numeric			TOT_SEV2	Same	
19	C injuries	Numeric			TOT_SEV3	Same	-
20	Crash severity	Text			ACC_SEV	Same	
21	Agency code	Text			AGENCY	Same	
22	Route number	Numeric	route prefix + route number	9055		Same	
23	Milestation	Numeric			MILEPOST	Same	
24	Class of trafficway	Numeric			CLS_TFWY	Same	
25	· · · · · · · · · · · · · · · · · · ·	Text	Y/N		NAT_HWY	Same	
26	Traffic control device code	Numeric			TRF_CNTL	Same	
	Road surface condition code	Numeric			RDSURF	Same	
28	Road defects code	Numeric			RDDEFIC	Same	
29	Light condition code	Numeric			LIGHT	Same	
30		Numeric			WEATHER	Same	
31	Cause 1 code	Numeric			CAUSE1	NA	
32	Cause 2 code	Numeric			CAUSE2	NA	
33	Railroad crossing number	Text	7 pos: six numbers one alpha	4:28 PM		Same	
34	Time of crash	Text	XX.XX XX	4:28 PM		Same	
35	Traffic control condition code	Numeric			TC_COND	Same	
36 37	Intersection related	Text	Y/N		INT_REL HIT RUN	NA Common	
38	Hit and run Crash date	Text	Y/N	12/23/2004	ACCDATE	Same Same	
			xx/xx/xxxx	12/23/2004	ACCDATE		
	Number of lanes	Numeric				NA NA	
40	Alignment code Trafficway description code	Numeric Numeric				NA NA	
42		Numeric	Two digit code, one field CC			Same	See feetnate
43	Roadway functional class Work Zone related	Text	Two digit codesee field 66 Y/N			NA	See footnote.
43	City_township flag	Text	C(City) or T(Township)			NA NA	
45	Crash coordinate Y	Text	xxxxxxx			NA NA	
46		Text	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			NA	
47		Text	XXXX			NA NA	
48	Crash longitude	Text	XXXX			NA NA	
49	County name	Text	For field 3			Same	
50	Day of Week	Text					Do not use Day label. Not correct.
51	Type of crash	Text	For field 13			Same	7
52	City name	Text	For field 10			Same	
	City class	Text	For field 11			Same	
	Class of trafficway	Text	For field 24			Same	
55	Cause1	Text	For field 31			NA	
56	Cause2	Text	For field 32			NA	
57	Traffic Device	Text	For field 26			Same	
58	Device condition	Text	For field 35			Same	
59		Text	For field 27			Same	
60	Road defects	Text	For field 28			Same	
61	Crash injury severity	Text	See field 68			Same	
62	Light condition	Text	For field 29			Same	
63	Weather code	Text	For field 30			Same	
64	Alignment	Text	For field 40			NA	
65	Trafficway description	Text	For field 41			NA	
66	,	Text	For field 42			Same	
	Investigating agency description	Text	For field 21			Same	
68			For field 61			Same	
69	Property description 1	Text				n/a	
70	Property description 2	Text				n/a	
71	Agency year	Numeric				n/a	
72	Agency Number	Numeric				n/a	
73		Numeric				n/a	
	Footnote: Field 42In 2001-2003 the first					cond digit describes	the functional class.
	For 2004 and 2005 the two digits di	escribe the	tunctional class. Field 66 has the	descriptions f	or all years.		

# ILLINOIS TRAFFIC CRASH FILE 2004-Present

# Field name

Case Number (number used to link the files)

Crash Id Internal number used for Database

County code: Cou	ty in which the crash occurred.
------------------	---------------------------------

1. ADAMS	19. DE KALB	37. HENRY	55. MC DONOUGH	73. PERRY	91. UNION
2. ALEXANDER	20. DE WITT	38. IROQOUIS	56. MC HENRY	74. PIATT	92. VERMILION
3. BOND	21. DOUGLAS	39. JACKSON	57. MC LEAN	75. PIKE	93. WABASH
4. BOONE	22. DU PAGE	40. JASPER	58. MACON	76. POPE	94. WARREN
5. BROWN	23. EDGAR	41. JEFFERSON	59. MACOUPIN	77. PULASKI	95. WASHINGTON
6. BUREAU	24. EDWARDS	42. JERSEY	60. MADISON	78. PUTNAM	96. WAYNE
7. CALHOUN	25.EFFINGHAM	43. JO DAVIESS	61. MARION	79. RANDOLPH	97. WHITE
8. CARROLL	26. FAYETTE	44. JOHNSON	62. MARSHALL	80. RICHLAND	98. WHITESIDE
9. CASS	27. FORD	45. KANE	63. MASON	81 ROCK ISLAND	99. WILL
10.CHAMPAIGN	28. FRANKLIN	46. KANKAKEE	64. MASSAC	82. ST. CLAIR	100. WILLIAMSON
11. CHRISTIAN	29. FULTON	47. KENDALL	65. MENARD	83. SALINE	101. WINNEBAGO
12. CLARK	30. GALLATIN	48. KNOX	66. MERCER	84. SANGAMON	102. WOODFORD
13. CLAY	31. GREENE	49. LAKE	67. MONROE	85. SCHUYLER	
14. CLINTON	32. GRUNDY	50. LA SALLE	68. MONTGOMERY	86. SCOTT	
15. COLES	33. HAMILTON	51. LAWRENCE	69. MORGAN	87. SHELBY	
16. COOK	34. HANCOCK	52. LEE	70. MOULTRIE	88. STARK	
17. CRAWFORD	35.HARDIN	53. LIVINGSTON	71. OGLE	89. STEPHENSON	
18.CUMBERLAND	36. HENDERSON	54. LOGAN	72. PEORIA	90. TAZEWELL	

**Crash year:** Last two digits of year in which crash occurred.

**Crash month:** Month in which crash occurred.

**Crash day:** Day of month in which crash occurred.

**Nbr of Vehicles:** Number of vehicles involved in crash

# Day of Week

1	Sunday
2	Monday
3	Tuesday
4	Wednesday
5	Thursday
6	Friday
7	Saturday

**Hour:** Hour of day crash occurred (24 hour).

**City Code:** List available if requested. City name is in field number 52.

**City Class Code** 

0	Unincorporated
3	Chicago
4	Population under 2,500
5	2,500 - 5,000
6	5,000 – 10,000
7	10,000 – 25,000
8	25,000 – 50,000
9	Over 50,000

**Township:** Township number

# **Collision Type Code**

1	Pedestrian
2	Pedalcyclist
3	Train
4	Animal
5	Overturned
6	Fixed Object
7	Other Object
8	Other Noncollision
9	Parked Motor vehicle
10	Turning
11	Rear-end
12	Sideswipe-same direction
13	Sideswipe-opposite direction
14	Head-on
15	Angle

Total Killed: Self coding.

**Total Injured:** Self coding.

**No injuries:** Count of persons involved in the crash that were not injured or killed.

**A injuries:** Total of incapacitating injuries in the crash.

<u>Incapacitating injury</u> – any injury other than fatal injury, which prevents the injured person from walking, driving, or normally continuing the activities he/she was capable of performing before the injury occurred. Includes severe lacerations, broken limbs, skull or chest injuries, and

abdominal injuries.

**B injuries:** Total of nonincapacitating injuries in the crash.

Nonincapacitating injury - any injury other than fatal or

incapacitating injury which is evident to observers at the scene

of the crash. Includes lump on head, abrasions, bruises,

minor lacerations.

**C injuries** Total of possible injuries in the crash.

<u>Possible injury</u> – any injury reported or claimed which is not either of the above injuries. Includes momentary unconsciousness, claims of injuries

not evident, limping, complaint of pain, nausea, hysteria.

# **Crash Severity**

	1	Fatal
Ī	2	Injury
	3	Property Damage

# **Agency Code (Investigating Agency)**

0 None	
1 City Police	
2 County Sheriff	
3 State Police	
9 All others	

Route Number: Route Prefix + route number Example: 9055 = Interstate 55

	Route Prefix
1	US Route
2	Interstate Business Loop
3	Business US Route
4	By-pass and US one-way couple
5	Illinois Route
6	Illinois one-way couple
7	Interstate Business Loop one-way couples
8	Non-marked Route
9	Interstate

Milestation: Self coding

# **Class of trafficway**

0	Unmarked highway rural
1	Controlled rural
2	State numbered rural
3	County and local roads rural
4	Toll roads rural
5	Controlled rural
6	State numbered urban
7	Unmarked highway urban
8	City streets urban
9	Toll roads urban

# National Highway System Yes

No

# **Traffic Control Device**

1	No controls
2	Stop sign/flasher
3	Traffic signal
4	Yield
5	Police/flagman
6	RR crossing gate
7	Other RR crossing
8	School zone
9	No passing
10	Other regulatory sign
11	Other warning sign
12	Lane Use Marking
13	Other
14	Delineators (2008)
99	Unknown

# **Road Surface**

1	Dry
2	Wet
3	Snow or slush
4	Ice
5	Sand, mud, dirt
6	Other
9	Unknown

# **Road Defects**

1	No defects
2	Construction zone
3	Maintenance zone
4	Utility work zone
5	Work zone—unknown
6	Shoulders
7	Rut, holes
8	Worn surface
9	Debris on roadway
10	Other
99	Unknown

# **Light Condition**

1	Daylight
2	Dawn
3	Dusk
4	Darkness
5	Darkness, lighted road
9	Unknown

# Weather

1	Clear
2	Rain
3	Snow
4	Fog/smoke/haze
5	Sleet/hail
6	Severe cross wind
7	Other
9	Unknown

# Cause 1 Primary Cause

The factor which is most significant in causing the crash, as determined by officer judgment.

# Cause 2 Secondary Cause

The second most significant factor contributing to the crash, as determined by officer judgment.

Some codes are purposely missing because they were previously used or were expanded and moved to the end of the list and renumbered.

01	Exceeding authorized speed limit
02	Failing to yield right-of way
03	Following too closely
04	Improper overtaking/passing
05	Driving on wrong side/wrong way
06	Improper turning/no signal
07	Turning right on red
80	Under the influence of alcohol/drugs (use when arrest is effected)
10	Equipment – vehicle condition

4.4	M/
11	Weather
12	Road engineering/surface/marking defects
13	Road construction/maintenance
14	Vision obscured (signs, tree limbs, buildings, etc.)
15	Driving skills/knowledge/experience
17	Physical condition of driver
18	Unable to determine
19	Had been drinking (use when arrest is not made)
20	Improper lane usage
21	Animal
22	Disregarding yield sign
23	Disregarding stop sign
24	Disregarding other traffic signs
25	Disregarding traffic signals
26	Disregarding road markings
27	Exceeding safe speed for conditions
28	Failing to reduce speed to avoid crash
29	Passing stopped school bus
30	Improper backing
32	Evasive action due to animal, object, non-motorist
40	Distraction – from outside vehicle
41	Distraction – from inside vehicle
42	Distraction – operating a wireless phone (changed for 2009
	to electronic communication device (cell phone, texting, etc.)
43	Distraction – other electronic device (navigation device,
	DVD player, etc) Added in 2009
50	Operating vehicle in erratic, reckless, careless, negligent or
	aggressive manner
99	Not applicable

Railroad Crossing Number
7 digit identifier made up of six numbers followed by an alpha character.

# Time of Crash:

Actual time of crash as entered by the reporting officer.

# **Traffic Control Device Condition**

1	No Controls
2	Not functioning
3	Functioning improperly
4	Functioning properly
5	Worn reflective material
6	Missing
7	Other
9	Unknown

# **Intersection Related:**

Yes

No

# Hit and Run

Yes No

Crash Date: MM/DD/YYYY

# **Number of Lanes**

"0" (zero) = Not applicable—Used for intersection Number= Through lanes, both directions

# Alignment

1	Straight and level
2	Straight on grade
3	Straight on hillcrest
4	Curve, level
5	Curve on grade
6	Curve on hillcrest

# **Trafficway Description**

	Two-way
1	not divided
2	divided, no median barrier
3	divided with median barrier
4	center turn lane
	Other
5	One-way or ramp
6	Alley or driveway
7	Parking lot
8	Other
9	Unknown

# **Roadway Functional Class**

10	Interstate
20	Freeway and Expressway
30	Other Principal Arterial
40	Minor Arterial (Non-Urban)
50	Major Collector (Non-Urban)
55	Minor Collector (Non-Urban)
60	Local Road or Street (Non-Urban)
70	Minor Arterial (Urban)
80	Collector (Urban)
90	Local road or Street (Urban)

# **Work Zone Related**

Yes No

# City/Township Flag

C (City)

T (Township)

Crash Coordinate X- State Plane Coordinates Field 46 Crash Latitude (Field 47) Crash Longitude (Field 48) County Name (Text for field 3) Day of Week Collision Type (Text for Field 13) City Name (Text for Field 10) **City Class (Text for Field 11)** Class of Trafficway (Text for Field 24) Contributory Cause 1 (Text for Field 31) **Contributory Cause 2 (Text for Field 32) Traffic Device (Field 57) (Text for Field 26) Device Condition (Field 58) (Text for Field 35)** Roadway Surface (Field 59) (Text for Field 27) Road Defects (Field 60) Crash Injury Severity Code (Field 61) 1 - C-injury crash—crash where most severe injury is C (possible injury) 2 - B-injury crash—crash where most severe injury is B(nonincapacitating injury) 3 - A-injury crash—crash where most severe injury is A(incapacitating injury) 4 - Crash with fatality(s) **Light Condition (Field 62) (Text for Field 29)** Weather Code (Field 63) (Text for Field 30) Alignment (Field 64) (Text for Field 40) Trafficway description (Field 65) (Text for Field 41) Roadway Functional Class Description (Field 66) (Text for Field 42) Investigating Agency Description (Field 67) (Text for 21)

Property Description 1 & 2 (Fields 69 and 70)

Crash Injury Severity Code (Field 68) (Numeric for Field 61)

Short description of property damaged by the crash

Agency Year

Dispatch year for the agency

Agency Number

Internal number used by individual agencies

Bar Code

Bar code number from the police report

Three new fields added to extract.

01-pres	sent Person file						
iold	2004-2009 fields					2001-2003 fields	
ield	Field name	Time	Format	Cyample	Dries nome	2001-2003 fields	Comments
number		Туре	Format	Example	Prior name	0	Comments
	Case number	Text			CASENUM	Same	
	PersonType	Numeric			NSEG_TYP	Same	
	UnitNo*	Numeric			VSEQ_NUM	Same	
	DOB	Date/time	mm/dd/yyyy			Driver only	Date of birth
	Age	Numeric				Same	
	Sex	Text	M/F			Same	
	DriverLicenseState	Text			DRV_LST	Same	
	DRAC	Numeric	Driver condition		DRV_COND	Same	
	BAC	Numeric	BAC of driver		DRV_BAC	Same	
	VIS	Numeric	Driver vision		DRV_VIS	Same	
	DRVA	Numeric	Driver action		DRV_ACT	Same	
12	SEAT_NO	Numeric	Seating position			Same	
13	INJ	Numeric	Injury severity			Same	
14	SAFT	Numeric	Safety equipment			Same	
15	AIR	Numeric	Airbag deployment			Same	
16	EJCT	Numeric	Extricated/ejected			Same	
17	EMS	Text				Same	
18	Hospital	Text				Same	
19	PPA	Numeric	Ped action		PED_ACT	Same	
20	PPL	Numeric	Ped location		PF_LOC	Same	
21	PEDV	Numeric	Ped/bike visibility		PED_VIS	Same	
22	Description	Text	For field 2			Same	
23	Ped_Bike_visibility	Text	For field 21			Same	
24	Driver condition	Text	For field 8			Same	
25	Air_Bag_Deployed	Text	For field 15			Same	
26	PED_Action	Text	For field 19			Same	
27	Driver_BAC_Test	Text	For field 9			Same	
	Ejection	Text	For field 16			Same	
	Driver_Action	Text	For field 11			Same	
	PED_Location	Text	For field 20			Same	
	Driver _Vision	Text	For field 10			Same	
	Safety_equipment	Text	For field 14			Same	

# **ILLINOIS PERSON FILE 2004-Present**

## Field name

Case Number

Number used to link files

# Person type

1 Driver

2 Pedestrian3 Pedalcyclist4 Equestrian

5 Occupant of nonmotorized vehicle

6 Noncontact vehicle

7 Passenger

# **Unit number**

Number which identifies each person involved in the crash.

**DOB** Date of birth

**MMDDYYYY** 

# Age

Actual age of person type.

## Sex

M Male F Female

U Sex unknown

## **Driver License State**

Two letter abbreviation of state. May only have IL at this time.

# **DRAC** Apparent physical condition of driver

1 Normal

2 Impaired – alcohol 3 Impaired – drugs

4 Illness

5 Asleep/fainted 6 Medicated

7 Had been drinking

8 Fatigued

9 Other/unknown

# **BAC** Driver BAC test result

Reported BAC result or one of the following:

95 Test refused 96 Test not offered

97 Test performed, results unknown

# VIS Driver vision

- 1 Not obscured
- 2 Windshield (water/ice)
- 3 Trees, plants
- 4 Buildings
- 5 Embankment
- 6 Signboard
- 7 Hillcrest
- 8 Parked vehicles
- 9 Moving vehicle
- 10 Blinded headlights
- 11 Blinded sunlight
- 12 Blowing materials
- 13 Other
- 99 Unknown

# **DRVA** Driver Action

- 1 None
- 2 Failed to yield
- 3 Disregarded control devices
- 4 Too fast for conditions
- 5 Improper turn
- 6 Wrong way/side
- 7 Followed too closely
- 8 Improper lane change
- 9 Improper backing
- 10 Improper passing
- 11 Improper parking
- 12 License restrictions
- 13 Stopped school bus
- 14 Emergency vehicle on call
- 15 Evading police vehicle
- 16 Other
- 17 Unknown

# **SEAT NO** Seating position

- 1 Driver
- 2 Center front
- 3 Passenger
- 4 Second row left
- 5 Second row center
- 6 Second row right
- 7 Enclosed passengers
- 8 Exposed passengers
- 9 Unknown position

Below: added to 10/06 crash report

- 10 Third row left
- 11 Third row center
- 12 Third row right

# INJ Injury severity \*\*\*\*\*\*\*\*VALUES CHANGED Starting with 2004 data

- 4 Fatality
- 3 A-injury Incapacitating injury any injury other than fatal injury, which prevents the injured person from walking, driving, or normally continuing the activities he/she was capable of performing before the injury occurred. Includes severe lacerations, broken limbs, skull or chest injuries, and abdominal injuries.
- 2 B-injury Nonincapacitating injury any injury, other than fatal or incapacitating injury, which is evident to observers at the scene of the crash. Includes lump on head, abrasions, bruises, minor lacerations.
- 1 C-injury Possible injury any injury reported or claimed which is not either of the above injuries. Includes momentary unconsciousness, claims of injuries not evident, limping, complaint of pain, nausea, hysteria.
- 0 No indication of injury.

# **SAFT** Safety equipment

- 1 None present
- 2 Safety belt used
- 3 Safety belt not used
- 4 Helmet used
- 5 Helmet not used
- 6 Child restraint used
- 7 Child restraint used improperly
- 8 Child restraint not used
- 9 Usage unknown

# AIR Air bag deployed

- 1 With seat belt
- 2 Without seat belt

Below: Added to 10/06 crash report, 1 and 2 dropped

- 3 Not applicable
- 4 Did not deploy
- 5 Deployed, front
- 6 Deployed, side
- 7 Deployed other (knee, air belt, etc.)
- 8 Deployed, combination
- 9 Deployment unknown

**EJCT** Ejection or extrication

1 None

2 Totally ejected 3 Partially ejected 4 Trapped/extricated

9 Unknown

**EMS** Any reported EMS information

**Hospital** Hospital taken to, when reported

PPA Ped/Pedal Action

3 Turning left 4 Turning right

20 Enter from drive/alley

50 No action

51 Crossing – with signal52 Crossing – against signal

Entering / Leaving / Crossing 53 School Bus (within 50 ft.)

54 Parked vehicle55 Not at intersection

Walking / Riding 56 With traffic 57 Against traffic

58 To/from disabled vehicle

Other:

59 Waiting for school bus

60 Playing/working on vehicle

61 Playing in roadway

62 Standing in roadway 63 Working in roadway

64 Other action

65 Intoxicated ped/pedal

99 Unknown/NA

PPL Ped/Pedal Location

1 In roadway

2 In crosswalk

3 Not in available crosswalk

4 Crosswalk not available

5 Driveway access

6 Not in roadway

7 Bikeway

9 Unknown/NA

#### **PEDV** PED/Bike visibility

- 1 No contrasting clothing2 Contrasting clothing3 Reflective material4 Other light source used

# ILLINOIS VEHICLE FILE 2004-Present

# Field name

Case Number

Number used to link files

**Unit number** 

Number which identifies each vehicle involved in the crash.

VIN11

First 11 alphanumeric codes of the VIN

# **Number of Occupants**

Number of persons in vehicle—driver plus passengers

VEHT	Vehicle type
1.	Passenger car
2.	Pickup truck
3.	Van/mini-van
4.	Bus up to 15 passengers
5.	Bus over 15 passengers
6.	Truck – single unit
7.	Tractor w/semi-trailer
8.	Tractor w/o semi-trailer
9.	Farm equipment
10.	Motorcycle (over 150 cc)
11.	Motor driven cycle
12.	Snowmobile
13.	All-terrain vehicle (ATV)
14.	Other vehicle with trailer
15.	Sport utility vehicle (SUV)
16.	Other
99.	Unknown/NA

VEHU	Vehicle use
1.	Not in use
2	Personal
3	Driver education
4	Ambulance
5	Fire
6	Police
7	School bus
8	CTA (Chicago Transit Authority)
9	Mass transit
10	Other transit
11	Military
12	Agriculture
13	Tow truck
14	Construction/maintenance
15	House trailer
16	Camper/RV – towed/multi-unit
17	Camper/RV – single unit

18	Taxi/for hire
20	Commercial – multi-unit
21	Commercial – single unit
22	State owned
24	Lawn care/Landscaping (Added for 2008
	Data)
98	Other
99	Unknown/NA

MANV Vehicle Maneuver Prior		
The vehicle maneuver is prior to the crash.		
1 Straight ahead		
2	Passing/overtaking	
3	Turning left	
4	Turning right	
5	Turning on red	
6	U-turn	
7	Starting in traffic	
8	Slow/stop – left turn	
9	Slow/stop – right turn	
10	Slow/stop – load/unload	
11	Slow/stop in traffic	
12	Driving wrong way	
13	Changing lanes	
14	Avoiding vehicles/objects	
15	Skidding/control loss	
16	Entering traffic lane from parking	
17	Leaving traffic lane to park	
18	Merging	
19	Diverging	
20	Enter from drive/alley	
21	Parked	
22	Parked in traffic lane	
23	Backing	
24	Driverless	
25	Other	
26	Negotiating a curve	
99	Unknown/NA	

# **DIRP** Direction Travel Prior

- 1 North
- 2 Northeast
- 3 East
- 4 Southeast
- 5 South
- 6 Southwest
- 7 West
- 8 Northwest
- 9 Unknown

# **TOW** Towed due to crash

Yes No Fire Ind Fire indicator

Yes No

**HAZMAT** Hazardous Material Spill

Yes No

**CV IND** Commercial vehicle indicator

Yes No

**Most Harmful Event** 

Self coding

**Location of Most Harmful** 

Self coding

Most Harmful Event Number

Self coding

**EVENT1** Vehicle first event

**EVENT2** Vehicle second event

**EVENT3** Vehicle third event

Event codes:

Noncollision

- 1 Ran off the roadway
- 2 Overturn
- 3 Fire/explosion
- 4 Immersion
- 5 Jackknife
- 6 Cargo shift/loss
- 7 Separation
- 8 Downhill runaway
- 9 Other noncollision
- 99 Unknown

Collision with:

Not Fixed Objects:

- 11 Motor vehicle in traffic
- 12 Pedestrian
- 13 Pedalcyclist
- 14 Railway train
- 15 Deer
- 16 Other animal

- 17 Falling load
- 18 Hit parked vehicle
- 19 Thrown/falling object
- 20 Other object
- 99 Unknown

# Fixed Objects:

- 21 Crash cushion
- 22 Guardrail face
- 23 Guardrail end
- 24 Concrete median barrier
- 25 Bridge support
- 26 Bridge end
- 27 Bridge rail
- 28 Bridge underside
- 29 Traffic signal
- 30 Light support
- 31 Utility pole
- 32 Delineator post
- 33 Railroad signal/gates
- 34 Other pole or post
- 35 Culvert
- 36 Curb
- 37 Ditch/embankment
- 38 Snowbank
- 39 Fence
- 40 Mailbox
- 41 Tree or shrub
- 42 Building/structure
- 43 Other fixed object
- 44 Cable barrier
- 99 Unknown
- **LOC1** Location of first event
- LOC2 Location of second event
- LOC3 Location of third event

# Location codes:

- 1 On pavement (roadway)
- 2 Off pavement left
- 3 Off pavement right
- 4 Intersection
- 5 Other
- 9 Unknown

# **First Contact**

Point of first contact

00 None

01 Front

02 Right front quarter panel

03 Right side center

04 Right back quarter panel

05 Rear

06 Left rear quarter panel

07 Left side center

08 Left front quarter panel

09 Roof

10 Under carriage

11 Total (All areas)

12 Other

99 Unknown

# **Vehicle Defects**

01 None

02 Brakes

03 Steering

04 Engine/motor

05 Suspension

06 Tires

07 Exhaust

08 Lights

09 Signals

10 Windows

11 Restraint system

12 Wheels

13 Trailer coupling

14 Cargo

15 Fuel system

16 Other

99 Unknown

# **Vehicle Year**

Model year of vehicle

# **Vehicle Make**

Make of vehicle

# **Vehicle Model**

Model of vehicle

# APPENDIX B

# Illinois Traffic Safety Report SR 1050

# Illinois Traffic Crash Report SR 1050

2009

Instruction Manual for Law Enforcement Agencies

# Crash Data Saves Lives!





# Illinois Traffic Crash Report SR 1050



Instruction Manual for Law Enforcement Agencies

Traffic Crash Report forms are printed and furnished by the Illinois Department of Transportation, Division of Traffic Safety. To request forms and other crash reporting materials, or to obtain further information:

- > call us at (217) 782-2575 TTY (217) 524-4875
- > email us at dot.crashforms@illinois.gov

You may also fax a completed order form (page 24 of this manual) to (217) 782-5149

Illinois Department of Transportation Division of Traffic Safety Attention: Local Liaison 3215 Executive Park Drive Springfield, Il 62794-9211

This manual can also be found at:

http://www.dot.il.gov/trafficsafety/SR1050.pdf

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8	Step-by-Step Instructions
22	Coding Examples – Sequence of Events (EVNT) and Type of First Crash (COLL)
24	Definitions for Type of First Crash (COLL) – with additional examples
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27	Order Form – for crash reporting materials
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31	Coding Templates 1 and 2
35	Commercial Motor Vehicle (CMV) Coding Information – as shown on the back cover of SR1050 booklets
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# **Preface**

The Illinois Department of Transportation (IDOT) is pleased to provide the new Illinois Traffic Crash Report SR 1050 Instruction Manual for Law Enforcement Agencies. This manual addresses changes to the SR 1050 crash form brought about by amendments to the Illinois Vehicle Code (effective January 1, 2009), and offers clarifications and examples which should assist investigating officers in the completion of the SR 1050.

The SR 1050 is the only crash report form approved by Illinois law for use in reporting crash investigations to IDOT, the designated Administrator of crash information for the State of Illinois. No other crash report form is authorized. Modifications to the form are not permitted, though any suggestions for improvements are welcomed.

It is extremely important that all required fields on the SR 1050 be completed accurately, completely, and legibly. IDOT uses the crash information for a number of vital purposes, including crash analysis, roadway engineering improvements, safety program design, and ultimately, preventing death/injury on Illinois roadways. The importance of submitting complete and readable information cannot be overstated.

Timeliness is a critical factor in crash reporting. Beyond the statutory requirement to submit SR 1050 reports to IDOT "within 10 days after investigation of the motor vehicle accident" is the simple fact that punctual reporting may provide the necessary information to improve a roadway and save a life.

IDOT extends a sincere thanks to the law enforcement agencies and individual officers who perform this valuable duty for the motorists of Illinois.

Call us at **(217) 782-2575** to request crash report training from an IDOT instructor. A class can be customized to accommodate your agency's specific training and scheduling requirements.

# **Mobile Capture & Reporting System (MCR)**

IDOT has introduced the Mobile Capture & Reporting (MCR) computer system, which allows electronic capture and submittal of crash report data. You should contact us at (217) 558-2899 if your agency is interested in obtaining electronic crash reporting capabilities.

# **SR 1050 Crash Report Form Design**

**SR 1050:** Crash form sets are provided in booklet form, 10 sets per booklet. Two coding templates are attached to each booklet for completion of the data fields along the top and right edges of the Police Report. Each form set contains three separate sheets: one Police Traffic Crash Report form followed by two Motorist Report forms, all separated by carbon sheets. The carbon sheets allow for most of the front side of the Motorist Report forms to be completed simultaneously when completing the front of the Police Report.

Once all information pertaining to the PASSENGERS & WITNESSES ONLY line(s) has been completed on the Police Report, the Motorist Report form(s) should be removed from the booklet and given to the motorist(s). Motorist(s) should be instructed to complete and, within 10 days, submit the Motorist Report(s) to IDOT, as required by law. The remainder of the Police Report should then be completed by the officer, and any unused Motorist Report forms (e.g., single vehicle crashes) should be destroyed.

Completing Reports: The entire report form must be completed if a crash involves an injury or a unit requires towing from the scene due to damage caused by the crash (Type B). Only the blue-shaded areas must be completed if neither of these conditions is met (Type A). However, if the EVENT (EVNT) boxes are left incomplete (lower left corner), a Diagram and Narrative must be provided. Also, if the investigating officer/agency believes additional information is warranted beyond what is *required* for a Type A crash, the entire report should be completed.

**Additional Units:** If more than two units are involved in a crash, the SR 1050A form set, commonly referred to as the ADDITIONAL UNITS form, should be used in conjunction with the SR 1050. The pre-printed primary **control number** (located under the upper bar code on the SR 1050) and the **INVESTIGATING AGENCY** field must be handwritten in the specified areas at the top of the SR 1050A. The **control number** allows IDOT to ensure that all records for each and every crash are compiled in IDOT's Crash Information System.

**Amending Reports:** The SR 1050A can also be used to amend completed reports that have already been forwarded to IDOT. Be sure to check the **AMENDED** box (near the top left corner) and write the pre-printed **control number** from the original crash report in the specified area. Provide the new or changed information in the appropriate field. It is not necessary to complete the entire report a second time when submitting only amended information.

**Additional Information:** All attachments <u>must</u> be copied and sent in with the matching 7-digit **control number** from the upper right corner of the original SR1050 traffic crash report.

**Submitting Reports:** Clear, black and white **copies** of Police Reports – <u>not originals</u> – should be forwarded to the following address:

ILLINOIS DEPARTMENT OF TRANSPORTATION POLICE CRASH REPORT OFFICE P.O. BOX 19211
SPRINGFIELD IL 62794-9211

Copies of Police Reports must be accompanied by a "Police Report Batch Cover Sheet." IDOT will provide cover sheets and mailing labels displaying the above address. Please do not use Motorist Envelopes to submit Police Reports.

Removal of Unused SR1050s: Please remove all unused forms older than 2009 from circulation. The date is located on the lower left corner of the form, after "SR1050." Please check all desk drawers, files, vehicles (trunks, too), lockers, etc., to ensure all unused forms older than 2009 are collected and destroyed.

# **Fatalities**

A fatal crash is a traffic crash involving a motor vehicle in which at least one person dies within 30 days of the crash.

- Police Crash Reports with Fatalities should be submitted as soon as possible in pre-addressed envelopes provided by the Department for this exclusive use.
- It is the responsibility of the officer/agency to amend the crash report and **notify**IDOT of any death occurring after the original crash report has been submitted,
  if such death is a result of the crash and occurs within 30 days of the crash.

A crash resulting in one or more fatalities increases the importance of every data item on the SR 1050 crash form. **IDOT will vigorously pursue missing, incomplete, and/or conflicting fatal crash information**.

# **General Information**

Print legibly, press hard, and use only black ink to complete traffic crash report forms.

Complete all required fields. When entering data codes from the two templates, make sure to distinguish between a 9 and 99 to indicate the information is Unknown or N/A (not applicable). **In many data fields, a 9 does <u>not</u> mean Unknown/NA**. Do <u>not</u> use Unknown unless a description is not listed on a template.

Known or perceived vehicles **at-fault should be entered as Unit 1**. If the at-fault vehicle is not evident, the striking unit should be entered as Unit 1. Provide a Diagram and Narrative if neither one can be determined.

# **Reporting Requirements**

**The Law:** Effective January 1, 2009, the legal reporting threshold for traffic crashes involving only property damage increases from \$500 to \$1,500 when all drivers are insured. However, if any driver does not have insurance, the threshold remains \$500. In both cases, the investigating enforcement agency must complete and forward a written report to IDOT, on a form provided/approved by IDOT, within 10 days of the crash investigation. Private property crashes are not excluded from this requirement. [625 ILCS 5/11-406 and 408]



Police Crash Report Office, P.O. Box 19211, Springfield, IL 62794-9211

# **SR 1050**

Illinois law requires Police Crash Reports to be submitted to the Illinois Department of Transportation within 10 days after the crash investigation.

# ATTENTION

Questions? Comments? Need to order forms? Call (217) 782-2575

# ATTENTION

# **NEW JANUARY 1, 2009**

Effective January 1, 2009, the legal reporting threshold for traffic crashes involving only property damage increases from \$500 to \$1,500 when all drivers are insured. However, if any driver does not have insurance, the threshold remains \$500. In both cases the investigating enforcement agency must complete and submit an \$R 1050 report to IDOT.

Example: A 2-vehicle crash occurs causing \$800 damage to one of the units. One driver is insured but the other is not, therefore a report is required using the \$501 - \$1,500 threshold (below).

DAMAGE TO ANY ONE PERSON'S

□ \$500 OR LESS □ \$501 - \$1,500

VEHICLE/PROPERTY OVER \$1,500

(As it appears on new form)

Using the same crash above, if both drivers are insured and the damage remains \$800, no report is required. However, if damage over \$1,500 occurred to either unit, a crash report is required regardless of insurance.

Note: If insurance is unknown, assume they are uninsured (hit & run or parked-no driver).

Regarding motorists: If the threshold amount is exceeded, motorists must be provided a Motorist Report form to complete and submit to IDOT.

### Also added on January 1, 2009

CIRCLE DAY OF WEEK SU MO TU WE TH FR SA

Template 1 (Back)

CONTRIBUTORY CAUSE
One code is clarified and one code is added.

42 Distraction – electronic communication device (cell phone, texting, etc.)

43 Distraction – other electronic device (navigation device, DVD player, etc.)

# Other Recent Changes

Crash Form

The Commercial Motor Vehicle (CMV) configurations are now on the back cover of this booklet.

TYPE OF REPORT Not on Scene is clarified.

NOT ON SCENE (DESK REPORT)

UNIT TYPE

One unit type is added to identify parked cars without drivers.

PARKED-NO DRIVER

Continued

## Template 1

EVENT (EVNT)
One code is revised and one is added.

18 Hit parked vehicle 44 Cable barrier

TRAFFIC CONTROL DEVICE (TRFD)

One code is added.

14 Delineators

VEHICLE USE (VEHU) One code is added.

24 Lawn care/ Landscaping

PED/PEDAL LOCATION (PPL)
One code is added.

7 Bikeway

PED/PEDAL ACTION (PPA)
One code is added.

65 Intoxicated ped/pedal

NUMBER OF OCCUPANTS (OCCS)

Clarification is added.

Include driver as part of OCCS total. Example: 3 Passengers + 1 Driver = 4

PLEASE! Choose codes from Template 1 & 2 carefully. Make sure each selection is accurate and valid. Do not use 9 and 99 interchangeably because 9 does not always denote Unknown/NA.

# **Step-by-Step Instructions**

- See Crash Report Form with Instruction Numbers and Coding Templates on pages 29 - 35.
  - This **control number** is part of a pre-numbered form set. The bar code is used by IDOT to identify and file the form sheets pertaining to the crash. Do not write in this space or obliterate the numbers. Use this control number on any ADDITIONAL UNIT and/or AMENDED forms pertaining to the crash.
  - 2 Enter the **name of your agency**. If your city and county have the same name, enter **City** or **County** after your agency name (example: Champaign City).
  - 3 Effective January 1, 2009, the legal reporting threshold for traffic crashes involving only property damage increases from \$500 to \$1,500 when all drivers are insured. However, if any driver does not have insurance, the threshold remains at \$500. In both cases, the investigating enforcement agency must complete and submit an SR 1050 report to IDOT.

**Example**: A 2-vehicle crash occurs causing \$800 damage to one of the units. One driver is insured but the other is not; therefore, a report is required using the \$501 - \$1,500 threshold (below).

DAMAGE TO ANY
ONE PERSON'S

VEHICLE/PROPERTY
(As it appears on new form)

□ \$500 OR LESS
□ \$501 - \$1,500
OVER \$1,500

Using the same crash above, if both drivers are insured and the damage remains at \$800, no report is required. However, if damage over \$1,500 occurred to either unit, a crash report is required regardless of insurance.

Note: If insurance is unknown, assume they are uninsured (HIT & RUN or PARKED - NO DRIVER).

Regarding motorists: If the threshold amount is exceeded, motorists must be provided a Motorist Report form to complete and submit to IDOT.

Mark the appropriate box for one of the items below:

-	 <u></u>
	ON SCENE – investigated at crash scene.
	NOT ON SCENE (DESK REPORT) - report taken not on scene.
	<b>AMENDED</b> – additional information not contained in the original report.
	Enter the original crash report bar code number in the space provided if
	using an SR 1050A form.

Type A crash – If no one was injured and no vehicle was towed due to damage caused by the crash, mark the box labeled A - No Injury/Drive Away (Type A crash). Only the blue-shaded areas on the form must be completed for a Type A crash; however, the entire report should be completed when the investigating officer/agency believes additional information is warranted.

Type B crash – If the crash involves death, injury, and/or a vehicle was towed from the scene due to damage caused by the crash, mark the box labeled B - Injury and/or Tow Due to Crash (Type B crash). The entire form must be completed for Type B crashes.

- 6 Enter AGENCY CRASH REPORT NO., which is the case number assigned by your agency. Enter the year in the left portion of the block followed by the sequential number.
- 7 When available enter the **ADDRESS NUMBER** closest to the location of the crash.
- 8 Enter the **HIGHWAY** or **STREET NAME** (or **number**) on which the crash occurred.
- When the crash occurs at an intersection, mark the box labeled AT INTERSECTION WITH. Enter the number(s) and/or name(s) of the intersecting highway(s) and/or street(s). An alley is not considered an intersection unless a TRAFFIC CONTROL DEVICE (TRFD) is present. When the crash is not at an intersection, mark the other box and enter the information below:

NUMBER or NAME of highway/street upon which the crash occurred DISTANCE to nearest intersection (FT or MI)
DIRECTION from nearest intersection (N, E, S or W)
NUMBER or NAME of nearest intersecting highway/street

## DO . . .

- Use only street names listed on a city, county or state road map. If it is a marked U.S. or state highway, use the route designation instead of the street name. Use 911 names if known.
- Indicate to/from directions prior to the crash to identify an entrance or exit ramp crash location, such as: SB (southbound) I-55 exiting onto NB (northbound) I-355.

# DO NOT . . .

- Use business names or local landmarks (e.g., McDonald's entrance, old red barn, high school).
- 10 Enter the name of the CITY/TOWN/VILLAGE in which the crash occurred and check the box for City. Or, if the crash occurred outside incorporated limits, enter the name of the TOWNSHIP OR ROAD DISTRICT and check the box for **Township**.
  - If the location of the crash is in question (city vs. township), provide the name of the **City** closest to the location.
- 11 Enter the name of the **COUNTY** in which the crash occurred.

	Mark the	Yes or	No box	for the	following	(# 12 -	<b>14</b> ):
--	----------	--------	--------	---------	-----------	---------	--------------

**12 INTERSECTION RELATED** – Was this an intersection *related* crash? A crash does <u>not</u> have to actually occur at an intersection to be considered intersection *related*.

**Example**: If five vehicles are lined up at a traffic signal and a rear-end collision occurs at the back of the line 75 feet from the intersection, it <u>would</u> be considered intersection related.

**PRIVATE PROPERTY** – This is <u>not</u> the area to indicate that there was private property damage.

Check...

Yes:	Only if the cra	sh began on	, ended on	, and all	damage o	ccurred on
priva	ite property.					

□ **No**: If the crash began on a public roadway, it is <u>not</u> a private property crash.

Some thoroughfares through shopping center parking lots may be considered public roadways. Contact IDOT if you need clarification.

Note: Illinois law does not exempt private property crashes from the reporting requirements. When your agency investigates motor vehicle crashes on private property involving death, injury, and/or damage to one person's property over \$500 or \$1,500, depending on drivers' insurance, the law requires that an SR 1050 report be completed and a copy submitted to IDOT. Motorists involved in such crashes must complete and submit the original Illinois Motorist Report (SR 1) to IDOT. (See "Submitting Reports" on page 5.)

Whether a crash occurs on private property or elsewhere, the decision to investigate and report it should be based on the three criteria stipulated by law: death, injury, damage over \$500 or \$1,500 to one person's property, depending on drivers' insurance.

- 14 HIT & RUN Was this a hit and run crash?
- 15 Enter the DATE OF CRASH (mo, day, and yr).
- 16 Circle the **DAY OF THE WEEK** the crash occurred.
- 17 Enter the **TIME** (hour and minute) of the crash using civilian time, and mark the **AM** or **PM** box.
- 18 Enter the total **NUMBER** of **MOTOR VEHICLES INVOLVED** in the crash.

- 19 LARS CODES are used by cities and counties participating in the Illinois Department of Transportation LOCAL ACCIDENT REFERENCE SYSTEM. In most standard operations, the records clerk completes this block. Please, do <u>not</u> write in this area if you do not have LARS Codes.
- 20 Enter the apparent at-fault unit as **UNIT 1** whenever possible. Mark the appropriate box to indicate the type of unit. (Remember, an animal cannot be a unit.)

Important: When identifying units by number (Unit 1, Unit 2, etc.), make sure each unit's number remains the same throughout the report (coding fields, Diagram, and Narrative).

DRIVER – person operating vehicle.
PARKED - NO DRIVER – when an unoccupied parked vehicle is struck.
PED (Pedestrian).
<b>PEDAL</b> (Pedalcyclist) – person operating bicycle, tricycle, unicycle, pedal car, etc. If a person is not actually operating the cycle at the time of the crash (i.e., walking/standing next to it), the <b>PED</b> box should be checked.
<b>EQUES</b> (Equestrian) – does <u>not</u> include a horse-drawn carriage and/or its occupants (see <b>NMV</b> below).
<b>NMV</b> (occupant of a Non-Motor Vehicle). <i>Examples: passenger on a train, occupant of a horse-drawn carriage, person sitting in a building struck by a motor vehicle.</i>
<b>NCV</b> (Non-Contact Vehicle) – a vehicle affecting a crash without any direct involvement (no contact); also, a pedestrian causing a crash, without any direct involvement (no contact).

Enter the **LAST NAME**, **FIRST NAME**, and **MIDDLE INITIAL (M.I.)** for that person. If available, enter the name shown on the driver's license.

If a vehicle is legally parked when struck, print PARKED next to the driver's name. If a vehicle is illegally parked when struck, print ILLEGALLY PARKED. In both instances, enter the name of the person, when known, who last had control of the vehicle and any available information.

If a **train** is involved, print the word TRAIN in place of the driver information and list it as **DAMAGED PROPERTY** (see # 44, 46 - 48).

**Towed** units should not be entered as separate units; they are considered part of the power unit. If the owner of the towed unit is different than that of the power unit, list the towed unit as **DAMAGED PROPERTY** (see # 46 - 48). A towed unit is the unpowered, pulled portion of any multi-unit combination vehicle.

- 21 Enter the **DATE OF BIRTH (mo, day,** and **yr)**.
- 22 Enter the STREET ADDRESS.
- 23 Indicate the **SEX** by printing **M** for male or **F** for female.
- **24** Enter a code for **SAFETY EQUIPMENT USED (SAFT)** from Template 2.

- 25 Enter a code for AIR BAG DEPLOYED (AIR) from Template 2.
- **26** Enter the **CITY**, **STATE**, and **ZIP** code.
- 27 Enter the most severe **INJURY CLASSIFICATION (INJ)** code from Template 2 according to the descriptions below:
  - **K Fatal** A fatal crash is a traffic crash involving a motor vehicle in which at least one person dies within 30 days of the crash.
  - A Incapacitating injury Any injury, other than a fatal injury, which
    prevents the injured person from walking, driving, or normally continuing the
    activities he/she was capable of performing before the injury occurred. This
    includes severe lacerations, broken/distorted limbs, skull injuries, chest
    injuries, abdominal injuries.
  - **B Nonincapacitating injury** Any injury, other than a fatal or incapacitating injury, which is evident to observers at the scene of the crash. This includes lumps on the head, abrasions, bruises, minor lacerations.
  - **C** Reported, not evident Any injury reported or claimed which is not listed above. This includes momentary unconsciousness, claims of injuries not evident, limping, complaints of pain, nausea, hysteria.
  - O No indication of injury.
- **28** Enter a code for **EJECTION OR EXTRICATION (EJCT)** from Template 2.
- 29 Enter the area code and **TELEPHONE** number. Cell phone numbers are permitted.
- **30** Enter the **DRIVER LICENSE NUMBER.** Enter NONE or N/A if appropriate.
- 31 Enter the **STATE** of driver's license issuance.
- 32 Enter the **CLASS** of Illinois driver's license. For out-of-state licenses, enter it as shown on the license (e.g., driver's, chauffeur's).
- Enter the name of the hospital, doctor's office, mortuary or other place the person was **TAKEN TO**. If the person refused medical treatment, indicate such.
- Enter the **EMS AGENCY** (ambulance service) that transported injured persons from the scene and the emergency medical service report or **RUN NUMBER**, when known. Enter UNKNOWN if applicable.
- Enter the **MAKE** of vehicle (e.g., Ford, Chevrolet). Enter the vehicle **MODEL** (e.g., Mustang, Blazer). Enter the manufacturer's designated model **YEAR**.
- Enter the license **PLATE NUMBER.** Enter the **STATE** issuing the license plate. Enter the **YEAR** that the registration expires.
- 37 Enter the VIN (Vehicle Identification Number).
- Enter the name of the titled **VEHICLE OWNER**. If it is the same as the vehicle driver, enter SAME.

- 39 Enter the complete **OWNER ADDRESS**, if different from the driver. If it is the same as the vehicle driver, enter SAME.
- Circle the **DAMAGED AREAS** on the diagram of the vehicle, or circle one of the 2-digit codes below:
  - 00 NONE
  - 10 UNDER CARRIAGE
  - 11 TOTAL (ALL AREAS)
  - 12 OTHER
  - 99 UNKNOWN

In the box labeled **POINT OF FIRST CONTACT**, enter one of the numbers (1 - 9) listed on or next to the vehicle diagram. Enter **52** in this box when the only damage to a multi-unit combination vehicle is to the unpowered, towed portion of the unit.

- 41 Mark the Y (Yes) or N (No) box for the items below:
  - **TOWED** Check yes if the vehicle was towed due to damage from the crash.
  - FIRE Was there a fire involving this vehicle?
  - HAZMAT SPILL (Hazardous Material) If yes is checked, complete the COMMERCIAL MOTOR VEHICLE section on the reverse side of the report form. Note: a vehicle's own fuel is not considered a hazardous material.
  - COM VEH (Commercial Vehicle) If a commercial vehicle was involved, complete the COMMERCIAL MOTOR VEHICLE section on the reverse side of the report form.
- 42 Enter the name of the **INSURANCE COMPANY** (not agent) which issued the policy for the vehicle. Enter NONE if not insured. Enter SELF-INSURED if appropriate.
- 43 Enter the **POLICY NUMBER** from the insurance card.
- 44 Enter the same information for the other traffic units following the instructions for # 20 43. If a train is involved, do not list the engineer as the driver of Unit 2. See # 46 for entering train information.
- Only information for **PASSENGERS & WITNESSES** should be entered in this section. As is the case elsewhere on the form, only the blue-shaded fields are required to be completed for Type A crashes, while all fields are to be completed for Type B crashes.
  - Enter the corresponding **UNIT** number for each individual listed. Enter **W** in the same box if listing a WITNESS.
  - Enter the corresponding SEAT number from the SEATING POSITION
    (SEAT) diagram located on Template 2. Number 7 is to be used if the
    passenger is occupying any other space in an enclosed vehicle. Cycle
    passengers legally seated are also to be coded as seat position 7. Number 8
    is to be used if the passenger is outside the vehicle (e.g., truck bed, fender,
    etc.). Use seat positions 10, 11, 12 to account for passenger vehicles with an
    additional row of seats.
  - Complete the remaining fields for each listed individual in the same manner used to complete the UNIT section(s) addressed above in # 20 34.

46 Enter the **DAMAGED PROPERTY OWNER NAME** (last, first, middle initial).

Wild animals are owned by the State of Illinois (no address required).

If a **train** is involved, print the word TRAIN in place of the driver information and list it as **DAMAGED PROPERTY**. Indicate the NAME OF THE RAILROAD COMPANY (in **# 46**), the LOCOMOTIVE NUMBER (in **# 47**), and the OWNER'S ADDRESS (in **# 48**). Damaged property contained within a vehicle should <u>not</u> be listed on the crash report.

- 47 Enter a description of **DAMAGED PROPERTY** other than vehicles.
- 48 Enter the **PROPERTY OWNER ADDRESS (STREET, CITY, STATE, ZIP)**.
- From the back of Template 1, select one or two **CONTRIBUTORY CAUSE** code(s) for the crash (not each vehicle). Further instructions and examples are listed beneath the code descriptions. Enter one or two codes per crash, not per unit.
- 50 Enter the **POSTED SPEED LIMIT** for the roadway upon which the crash occurred. If the crash occurred at an intersection, enter the **POSTED SPEED LIMIT** for the primary roadway.
- 51 Enter the ARREST NAME for the person who was arrested (last, first, middle initial).
- 52 Enter the violation **SECTION** number(s) from the Illinois Vehicle Code (IVC) / Illinois Compiled Statutes (ILCS). **List the most serious violation first.**
- 53 Enter the complete CITATION NUMBER(S).
- 54 Enter the **mo/day/yr** the police were notified of the crash (**DATE POLICE NOTIFIED**).
- Enter the hour and minute the police were notified (TIME POLICE NOTIFIED) and mark the AM or PM box.
- 56 Enter the investigating **OFFICER ID** number.
- 57 Enter the investigating officer's **SIGNATURE**. Rank may be included.
- 58 Enter the investigating officer's **BEAT / DISTRICT**, zone, and/or precinct if applicable.
- 59 Enter the **SUPERVISOR ID** number and/or name of the sworn officer reviewing the completed report.
- 60 Enter the COURT DATE (mo/day/yr).
- 61 Enter the **COURT TIME** and mark the **AM** or **PM** box.

Sequence and Location of Each EVENT (EVNT) – See examples on pages 22 and 23.

Instructions # 62 - 64 are used for identifying the **sequence** and **location** of each **EVENT** (**EVNT**) that occurred during the crash. The purpose is to identify what happened to each unit. Boxes are provided to identify three different events for each unit, from any of the following three categories on Template 1:

NONCOLLISION

COLLISION WITH: NOT FIXED OBJECTS

COLLISION WITH: FIXED OBJECTS

- Select the appropriate event from the **EVENT (EVNT)** box on Template 1. Under the column heading **(EVNT)**, and next to **UNIT 1** on the crash report form, enter the corresponding event number code to the right of the **1** (skipping over the **MOST** check box). If a second event occurred, select another event from the template and enter the number code to the right of the **2** next to **UNIT 1**. Place a third event number code to the right of the **3** next to **UNIT 1** if appropriate.
- Once the event number code has been entered, use the **EVENT LOCATION (LOC)** box on Template 1 to select a location for each event coded. Place the location number code to the right of each corresponding event code under the column heading **(LOC)**.
- Under the column heading **(MOST)**, a check box appears to the left of each **EVENT** number. Determine which event appears to be the most severe and mark that corresponding box only. Only one box per unit should be marked.

Follow the procedures for **# 62 - 64** for each unit listed on the crash report. Again, it is possible to list 1, 2, or 3 events/locations for each unit. If additional events occurred during the crash, list only the three most severe.

When 9 - OTHER NONCOLLISION is selected, no other entry should be entered. It should be <u>used only when no other EVENT occurred</u> and the <u>vehicle did not strike</u> someone or something. Example: an injury caused by an occupant falling from the vehicle.

A **FIXED OBJECT** can generally be thought of as an object that is intentionally constructed or placed at a particular location usually off or adjacent to the roadway.

A crash may involve an initial event, such as 1 - Ran off the roadway, and an indication of what was struck, such as 29 - Traffic signal. Or, if two units collide on the roadway, the only entry may be 11 - Motor vehicle in traffic. When more than one event is entered, check boxes are provided to identify the single most severe event for each unit. For Type A crashes, this information may replace a Diagram and Narrative. However, if event information is not provided, a Diagram and Narrative are required.

 Coding Boxes – See Crash Forms with Instruction Numbers & Coding Templates on pages 29 - 35.

Fields # 65 - 87 are to be completed using the numeric codes listed on **Template 1 and 2**. Only the blue-shaded fields must be completed for Type A crashes. Enter a 9 or 99 if the information is not available and/or not applicable. **Do not use 9 indiscriminately: it represents something other than Unknown/NA in 2-character fields**. For instance, in the **EVENT (EVNT)** field on Template 1, a 9 denotes **Other noncollision**.

Important: When identifying units by number (Unit 1, Unit 2, etc.), make sure each unit's number remains the same throughout the report (i.e., coding fields, Diagram, Narrative, other attachments).

- Enter a code for the **APPARENT PHYSICAL CONDITION (DRAC)** of each driver prior to the crash from Template 2.
- 66 Enter a code for **PED / BIKE VISIBILITY (PEDV)** from Template 2, if applicable.
- Enter a code for the **type** of **TRAFFIC CONTROL DEVICE (TRFD)**, if any, at the crash location from Template 1. If the crash is intersection related, enter the type of device at the intersection, regardless of that device's proximity to the actual crash location or its relevance to the crash.
- Enter a code for the **DEVICE CONDITION (TRFC)** at the time of the crash, from Template 1.
- 69 Enter a code for the **WEATHER CONDITION (WEAT)** at the time of the crash, from Template 1.
- For each driver, enter a code for the **DRIVER ACTION (DRVA)** that contributed to the crash, from Template 2.
- 71 Enter a code for the object or condition that obscured **DRIVER VISION (VIS)** for each unit, from Template 2.
- 72 Enter a code for the contributing **VEHICLE DEFECTS (VEHD)** or apparent malfunction for each unit, from Template 2.
- 73 Enter the most appropriate code for the **LIGHTING CONDITION (LGHT)** at the time of the crash, from Template 1.

74 Enter a code from Template 1 to indicate the TYPE OF FIRST CRASH (COLL), using the criteria below. The purpose of this field is to identify what caused the <u>first damage or injury</u>, not the most harmful event. The first damage or injury is to be provided in the EVENTS portion of the form (# 64).

**SINGLE VEHICLE CRASH** Types (Codes 1 - 8) – See page 24 for definitions of the crash types, examples, and additional help.

A SINGLE VEHICLE CRASH occurs when a motor vehicle's <u>first</u> damage/injury is with someone or something <u>other than another motor vehicle</u>. This type of crash may eventually involve other motor vehicles, but if the first damage/injury is between any two motor vehicles, it would not be a SINGLE VEHICLE CRASH.

. . . . . . . . . . . . . . . . . . .

**MULTI-VEHICLE CRASH** Types (Codes **9 – 15**) – See **page 25** for definitions of the crash types, examples, and additional help.

A MULTI-VEHICLE CRASH occurs when a motor vehicle's <u>first</u> damage/injury is with another motor vehicle. If two or more vehicles are involved in a crash, but the first damage/injury is between a motor vehicle and someone or something other than another motor vehicle, it is <u>not</u> a MULTI-VEHICLE CRASH.

To determine which of the MULTI-VEHICLE CRASH types best describes the crash, the **first consideration should be the intended direction of travel** of each motor vehicle prior to the onset of the crash. The direction of travel or position/angle of the vehicles at the point of contact is <u>not</u> applicable.

- 75 Enter a code from Template 1 for the **VEHICLE MANEUVER PRIOR (MANV)** to the crash for each unit. Going straight should be entered only if no other code applies. Priority should be given to actions at the top of the list.
- 76 Enter a code from Template 1 for the **PED/PEDAL ACTION (PPA)** prior to the crash. Enter number **53** if a school aged (5-19) pedestrian is struck within 50 feet of a school bus by either the bus or another vehicle.
- 77 Enter a code from Template 1 for the **PED/PEDAL LOCATION (PPL)** prior to the crash.
- 78 Enter a code from Template 2 for the **TRAFFICWAY DESCRIPTION (TRFW)**.
- 79 Enter a code from Template 1 for the general **VEHICLE TYPE (VEHT)** of each unit involved in the crash. A taxi is coded **1 Passenger** (car); its use will be identified in the **VEHICLE USE (VEHU)** boxes (#83).
- 80 Enter the **NUMBER OF LANES (NO. LANES)**, counting through lanes in both directions, whether or not the roadway is divided by a median (Template 2). Do not include left, right, or bi-directional turn lanes. Enter a **0** if the crash occurred at an intersection.

- 81 Enter a code from Template 2 for the **ALIGNMENT (ALGN)** of the roadway on which the crash occurred.
- 82 Enter a code from Template 2 for the **ROADWAY SURFACE CONDITION (RSUR)** at the time of the crash.
- 83 Enter a code from Template 1 for the intended or actual **VEHICLE USE (VEHU)** of each unit at the time of the crash.
- 84 Enter a code from Template 2 for any ROAD DEFECTS (RDEF) present at the time of the crash. If the crash occurs within or in the vicinity of a construction zone, maintenance zone, utility work zone, or work zone unknown type, enter a 2, 3, 4, or 5, respectively.

**Example**: If a crash occurs while vehicles are slowing in the approach to a construction zone, but not yet within the marked boundaries of the zone, it is considered **construction zone** related and a **2** should be entered.

85 Enter the **DRIVER BAC TEST RESULT (BAC)** or the appropriate code from Template 2 for each driver.

Important: If entering a BAC when a test was taken with known results, be careful to clearly and accurately place the decimal point using one of the following formats (depending on the actual reported results):

.XX or .XXX

**Examples**: A BAC test result of .08 should be reported as .08 – <u>not</u> 0.8 or 8 or 08 (without the decimal point). A BAC test result of .095 should be reported as .095 – <u>not</u> .95 (impossible result) or 95 (code for Test Refused).

If a drug test was given, indicate such in the Narrative. If a fatality occurs due to the crash, update and immediately send IDOT the BAC information as you receive it, using the SR 1050A AMENDED/ADDITIONAL UNITS form.

- Enter the total **NUMBER OF OCCUPANTS (NO. OCCS)**, including the driver, known to be in each unit at the time of the crash (Template 1). **Example**: 3 passengers + 1 driver = 4 Occupants.
- 87 Enter a code from Template 1 to indicate the **DIRECTION TRAVEL PRIOR (DIRP)** to the crash for each unit. This can be used to determine MULTI-VEHICLE CRASH types for # 74, above.

**Example**: If the **DIRECTION TRAVEL PRIOR** to the crash is **7** (West) for Unit 1, and **3** (East) for Unit 2, then the TYPE OF FIRST CRASH (COLL) must be a 10 - Turning, 13 - Sideswipe opposite direction, or 14 - Head on.

The reverse side of the form <u>must</u> be completed for crashes involving <u>death</u>, <u>injury</u>, or one or more units being <u>towed from the scene</u> because of damage from the crash.

If a commercial vehicle is involved in the crash, the Commercial Motor Vehicle (CMV) information must be completed (page 20).

# Diagram and Narrative

Important: When identifying units by number (Unit 1, Unit 2, etc.), make sure each unit's number remains the same throughout the report (i.e., coding fields, Diagram, Narrative, additional attachments).

Complete a **Diagram** to illustrate, as simply as possible, what happened during the crash. Number each unit to correspond with the same numbers assigned on the front of the report. The direction of travel for each unit must be indicated with an arrow. **INDICATE NORTH** with an **ARROW** in the circle located in the upper right corner. All Diagrams should show highway numbers and/or street names, as well as other roadway features/objects, that pertain to the crash. If additional space is needed, provide an attachment. The primary **control number** (# 1) and the sheet number of the total report must be indicated on any attachment.

It will be assumed that the investigating officer did not witness the crash, and that the Diagram is <u>not</u> drawn to scale (it is not a reconstruction), unless otherwise noted. A Diagram and Narrative are required on all <u>Type B</u> crashes, even if units have been moved prior to the officer's arrival.

- The **Narrative** should describe what happened as briefly as possible. The Narrative should describe the main events of the crash. Refer to units by numbers previously assigned. Any contributing circumstances or significant details not covered in the codes on the form should be included. Information on drug testing should be indicated in this area. If additional space is needed, a more detailed Narrative should be written on a separate attached sheet. The primary **control number** (# 1) and the sheet number of the total report should be indicated on this attachment.
- 90 The LOCAL USE ONLY section may be used by the reporting officer or the local agency to record information not entered elsewhere on the form. An area for vehicle color and towing information has been designated.

# ➤ COMMERCIAL MOTOR VEHICLES (CMV) – See page 30 to view CMV section on the crash form.

Fields # 91 - 106, on the right side of the form (back), should be completed for crashes involving commercial motor vehicles.

**Commercial motor vehicle** means any self propelled or towed vehicle used on public highways in interstate and intrastate commerce to transport passengers or property when:

- (a) The vehicle has a gross vehicle weight, a gross vehicle weight rating, a gross combination weight, or a gross combination weight rating of 10,001 or more pounds; or
- (b) The vehicle is designed to transport more than 15 passengers, including the driver; or
- (c) The vehicle is designed to carry 15 or fewer passengers and is operated by a contract carrier transporting employees in the course of their employment on a highway of this State; or
- (d) The vehicle is used in the transportation of hazardous materials in a quantity requiring placarding under the Illinois Hazardous Materials Transportation Act.

This definition does not include farm machinery, fertilizer spreaders, and other special agricultural movement equipment described in Section 3-809 [625 ILCS 5/3-809] or implements of husbandry as defined in Section 1-130 [625 ILCS 5/1-130].

- 91 Enter the CARRIER NAME and corporate ADDRESS of the motor carrier.
- **92** Mark the appropriate box indicating the **SOURCE** of the carrier name and address.
- 93 Enter all available **ID NUMBERS**, including the **US DOT** federal census number and the **ILCC** (Illinois Commerce Commission) number. These numbers are generally located on either side of the cab or power unit.
- 94 Enter the Gross Vehicle Weight Rating (GVWR). GVWR means the value specified by the manufacturer as the loaded weight of a single vehicle (vehicle weight combined with load weight). Include the power unit and trailer(s). Ratings are listed on the Federal certification label or tag generally located on the driver-side doorpost of the power unit and on the forward half of the left side of the trailer(s). If the GVWR is not available, use the Gross Combination Weight Rating (GCWR), which is the GVWR of the power unit combined with the total weight of the towed unit and any load thereon.
- 95 Mark the appropriate box indicating the display of **HAZMAT** (Hazardous Materials) **PLACARDS**.

If YES, enter on the appropriate line:

- The class **name** from any one placard (if applicable);
- The **4-digit** number from the center of the placard (product ID number);
- The **1-digit** placard number (lower corner).

Mark the appropriate box indicating a **HAZMAT spill** (do not count fuel from the vehicle fuel tank).

Mark the appropriate box indicating whether a **HAZMAT regulations violation** contributed to the crash.

Mark the appropriate box indicating whether a **Motor Carrier Safety (MCS) Regulations violation** contributed to the crash.

Mark the appropriate box indicating completion of a **HAZMAT** and/or **MCS Examination Report form,** and enter the Illinois Commercial Driver/Vehicle Examination Report **Form Number (Form No.)**.

Mark the appropriate box to indicate if any **Out of Service** violations were cited.

- **97** Enter the 7-digit oversize/overweight **IDOT PERMIT NO.**, if any.
- 98 Mark the appropriate box to indicate if it was a **WIDE LOAD**.
- 99 Mark the appropriate box to indicate the **TRAILER WIDTH(S)**.
- 100 Enter the **TRAILER LENGTH(S)**, to the nearest foot.
- 101 Enter the TOTAL VEHICLE LENGTH including the power unit and trailer(s), to the nearest foot.
- 102 Enter the total **NUMBER OF AXLES (NO. OF AXLES)** on the vehicle. Include the power unit and trailer(s).
- Mark the appropriate box to indicate CITY OF or NEAREST CITY.
  - Enter the **NAME** of the city or nearest city on the line provided. If **NEAREST CITY** is marked, enter the distance in miles and tenths of a mile and circle **N**, **E**, **S**, or **W** for the direction **from** the city.
- From the back cover of the crash booklet, enter the number corresponding to the **VEHICLE CONFIGURATION** best describing the vehicle.
- From the back of cover of crash booklet, enter the number corresponding to the CARGO BODY TYPE, when applicable.
- From the back cover of crash booklet, enter the number corresponding to the **LOAD**TYPE, when applicable.

# Coding Examples

# SEQUENCE OF EVENTS (EVNT) and TYPE OF FIRST CRASH (COLL)

(# 62 - 64) (# 74)

# Figure 1 - Pedestrian

Unit 1 is in an intersection making a turn. Unit 1 strikes a pedestrian crossing the street.

TYPE OF FIRST CRASH (COLL) = 1.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
N	1		12	4
T	2			
1	3			
U	1	$\boxtimes$	11	4
N	2			
T 2	3			

# Figure 1a - Pedestrian/Vehicle

Two highway maintainers are standing in the roadway next to their truck, Unit 4 (flashers on), spreading gravel. Unit 1 strikes both workers and the truck. (Units 2 and 3 are pedestrians.) TYPE OF FIRST CRASH (COLL) = 1.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
N	1	$\boxtimes$	12	1
I T	2		12	1
1	3		18	1
U N	1	$\boxtimes$	11	1
I	2			
T 2	3			

U	(ENVO)	(MOST)	(EVNT)	(LOC)
Ν	1	$\boxtimes$	11	1
T	2			
3	3			
U N	1	$\boxtimes$	11	1
N I	2			
T 4	3			

Figure 2 – Pedalcyclist
Unit 1 is in an intersection making a turn. Unit 1 strikes a pedalcyclist.
TYPE OF FIRST CRASH (COLL) = 2.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
N	1		13	4
T	2			
1	3			
U	1	$\boxtimes$	11	4
N I	2			
T 2	3			

# Figure 3 - Train

Unit 1 is struck by a train while crossing railroad tracks.

TYPE OF FIRST CRASH (COLL) = 3.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
U N	1	$\boxtimes$	14	1
T	2			
1	3			
U N	1			
N I	2			
T 2	3			
I T				

# Figure 4 - Animal

A deer is struck by Unit 1 on the roadway.

TYPE OF FIRST CRASH (COLL) = 4.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
Ν	1	$\boxtimes$	15	1
T	2			
1	3			
U N	1			
N I	2			
T 2	3			

# Figure 5 - Overturned

Unit 1, a tractor-semi trailer, fails to reduce speed sufficiently while entering an interstate exit ramp. Unit 1 runs off the left side of the roadway, overturns, and strikes a shrub.

TYPE OF FIRST CRASH (COLL) = 5.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
N	1		1	2
T	2	$\boxtimes$	2	2
1	3		41	2
U	1			
N	2			
T 2	3			

# Figure 6 - Fixed Object

Unit 1 runs off the right side of the roadway, strikes a bridge support, and overturns.

TYPE OF FIRST CRASH (COLL) = 6.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
Ν	1		1	3
I T	2		25	3
1	3		2	3
U N	1			
I	2			
T 2	3			

# Figure 7 - Other Object

Unit 2 strikes scrap metal lying on the roadway.

TYPE OF FIRST CRASH (COLL) = 7.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
N	1	$\boxtimes$	20	1
T	2			
1	3			
U	1			
N I	2			
T 2	3			

# Figure 8 – Other Noncollision

Unit 1 makes a sharp left turn at an intersection. The front passenger door opens and the unbelted occupant is thrown from the vehicle, suffering serious injury.

TYPE OF FIRST CRASH (COLL) = 8.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
Ν	1	$\boxtimes$	9	4
I T	2			
1	3			
U	1			
N I	2			
T 2	3			

### Figure 9 - Parked Motor Vehicle

As Unit 1 backs out of a parking stall at a shopping mall, it strikes Unit 2, which is parked.

TYPE OF FIRST CRASH (COLL) = 9.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
N	1	$\boxtimes$	18	5
I T	2			
1	3			
U	1	$\boxtimes$	11	5
N I	2			
T 2	3			

### Figure 9a – Parked Motor Vehicle

An unknown vehicle strikes Unit 2 and Unit 3, which are parallel parked along the right roadway.

TYPE OF FIRST CRASH (COLL) = 9.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
N	1	$\boxtimes$	18	1
T	2		18	1
1	3			
U N	1	$\boxtimes$	11	1
N I	2			
T 2	3			

U	(ENVO)	(MOST)	(EVNT)	(LOC)
Ν	1	$\boxtimes$	11	1
I T	2			
3	3			
U	1			
N I	2			
T 4	3			

# Figure 10 - Turning

While turning right onto an eastbound roadway, Unit 2 is struck by Unit 1, which is also eastbound but fails to stop at the 4-way stop intersection. A Turning crash takes precedence over all other multi-vehicle crash types except 9 - Parked.

TYPE OF FIRST CRASH (COLL) = 10.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
N	1	$\boxtimes$	11	4
Ť	2			
1	3			
U N	1	$\boxtimes$	11	4
I	2			
T 2	3			

### Figure 11 - Rear End

Unit 1 is following Unit 2 in the same lane on an interstate. Unit 1 strikes Unit 2 from behind causing Unit 2 to strike a median wall.

TYPE OF FIRST CRASH (COLL) = 11.

(ENVO)	(MOST)	(EVNT)	(LOC)
1		11	1
2			
3			
1		11	1
2		1	2
3	$\boxtimes$	24	2
	1 2 3 1 2	1	1

# Figure 12 – Sideswipe Same Direction

Unit 1 begins to pass Unit 2 on the left while traveling in the same direction on a 2-lane highway. Due to oncoming traffic, Unit 1 attempts to re-enter his traffic lane prematurely, striking the left side of Unit 2 with its right side.

TYPE OF FIRST CRASH (COLL) = 12.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
Ν	1	$\boxtimes$	11	1
I T	2			
1	3			
U N	1	$\boxtimes$	11	1
I	2			
T 2	3			

# <u>Figure 13 – Sideswipe Opposite</u> Direction

Unit 1 and Unit 2 are traveling in opposite directions on a 2-lane highway. Unit 1 slips on ice and veers left, striking oncoming Unit 2. All damage is to one side of each vehicle. Unit 2 spins off the right side of the roadway and overturns into a ditch.

TYPE OF FIRST CRASH (COLL) = 13.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
Ν	1		11	1
I T	2			
1	3			
U	1	$\boxtimes$	11	1
N I	2		1	3
T 2	3		2	3

### Figure 14 - Head-on

Unit 1 and Unit 2 are traveling towards one another in opposite directions on a 2-lane roadway. Unit 1 loses control and crosses the centerline into the path of oncoming Unit 2. The front of Unit 1 strikes Unit 2 on the driver's door.

TYPE OF FIRST CRASH (COLL) = 14.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
N	1	$\boxtimes$	11	1
T	2			
1	3			
U N	1	$\boxtimes$	11	1
I	2			
T 2	3			

Note: The definition of a Head-on crash is "a collision between two vehicles approaching each other from opposite directions and the first contact results in frontal damage to at least one of the vehicles."

### Figure 15 - Angle

Northbound Unit 2 proceeds through an intersection when the red light turns green. Eastbound Unit 1 fails to stop at the red light and strikes Unit 2 broadside. Unit 2 is pushed into a traffic signal.

TYPE OF FIRST CRASH (COLL) = 15.

U	(ENVO)	(MOST)	(EVNT)	(LOC)
Ν	1	$\boxtimes$	11	4
T	2			
1	3			
U	1	$\boxtimes$	11	4
N I	2		1	3
T 2	3		29	3

# **Definitions for TYPE OF FIRST CRASH (COLL)**

# - with additional examples

# Single Vehicle Crash Types

A SINGLE VEHICLE CRASH occurs when a motor vehicle's <u>first</u> damage/injury is with someone or something <u>other than another motor vehicle</u>. This type of crash may eventually involve two or more motor vehicles, but the first contact is <u>not</u> between any two motor vehicles.

- 1 Pedestrian crash a collision involving a pedestrian and a motor vehicle when the pedestrian is the first contact for the vehicle. If a motor vehicle has contact with another vehicle or object before striking the pedestrian, then the crash is not a Pedestrian crash.
- **2 Pedalcyclist crash** a collision involving a pedalcyclist and a motor vehicle when the **pedalcyclist is the first contact** for the vehicle. If a motor vehicle has contact with another vehicle or object before striking the pedalcyclist, then the crash is not a Pedalcyclist crash.
- **Train crash** a collision involving a railway vehicle and a motor vehicle when the **railway vehicle is the first contact** for the motor vehicle. If a motor vehicle has contact with another vehicle or object before striking the railway vehicle, then the crash is not a Train crash.
- 4 Animal crash a collision involving an animal and a motor vehicle when the animal is the first contact for the motor vehicle. An animal other than one powering another road vehicle (such as a buggy), should <u>not</u> be shown as a unit. If a motor vehicle has contact with another vehicle or object before striking an animal, then the crash is <u>not</u> an Animal crash. All animals should be entered as Damaged Property. Wild animals are owned by the State of Illinois (no address required).
- **5** Overturned crash a motor vehicle overturning without first striking another motor vehicle or an object.
- 6 Fixed object crash a collision of a motor vehicle with a fixed object when no other vehicle or object has been struck. The Fixed object crash always occurs off pavement (roadway) unless the vehicle has struck the underside of an overpass, a curb, an overhead sign, an overhead traffic control device, or a railway crossing gate. The EVENT prior to striking the fixed object must be Ran off the roadway, unless the fixed object is one of those listed above.
- 7 Other object crash a collision of a motor vehicle with an object that is not a fixed object. In general, other objects are not intended to be in the roadway; however, this collision can occur on or off the roadway. Examples of other (not fixed) objects: fallen trees, stones, other objects not moving when struck.
- 8 Other noncollision crash a motor vehicle that has not collided with another motor vehicle or object, or has not overturned. This crash type is also used in crashes where a breakage of any part of the motor vehicle (e.g., blown tire) precedes other collision types (e.g., fixed object, overturned, etc). Examples of Other Noncollision crashes: jackknife; fire starting in a motor vehicle while it is in transport; an object falling on or in a motor vehicle in transport causing damage; breakage of any part of the motor vehicle resulting in injury or further property damage; injury or damage that is of a noncollision nature involving only the motor vehicle.

**Example 1:** Unit 1 skids on a patch of ice, spins out of control, leaves the roadway, and strikes a tree in the median. This should be coded **6 - Fixed object**. Note: simply losing control and leaving the roadway does not, in this case, cause damage or injury; consideration must be given to when damage actually occurs. Therefore, losing control does <u>not</u> warrant coding this crash 8 - Other noncollision.

**Example 2:** Unit 1 is traveling north on a two-lane roadway when a deer crosses its path. Unit 1 strikes the deer, overturns, and strikes another motor vehicle traveling in the opposite direction. This should be coded **4 - Animal** because Unit 1 struck the deer before overturning and striking the other motor vehicle.

# **Multi-Vehicle Crash Types**

**A MULTI-VEHICLE CRASH** occurs when a motor vehicle's <u>first</u> damage/injury is with another motor vehicle. Therefore, if two or more vehicles are involved in a crash but the first contact is between a motor vehicle and someone or something other than another motor vehicle, it is <u>not</u> a MULTI-VEHICLE CRASH.

- The primary at-fault vehicle should be entered as UNIT 1.
- The intended direction of travel of each motor vehicle prior to the onset of the crash should determine the selection of the MULTI-VEHICLE CRASH code – <u>not</u> the direction of travel or position/angle of the vehicles at the point of contact.

If the <u>first</u> damage/injury occurs when two vehicles strike, you must select from codes 9 - 15. More than two motor vehicles may be involved in a crash.

- **9** Parked motor vehicle crash a collision between a moving motor vehicle and a legally <u>parked</u> motor vehicle. This crash type takes precedence over <u>all</u> other MULTI-VEHICLE CRASH TYPES.
- 10 Turning crash takes precedence over <u>all</u> other MULTI-VEHICLE CRASH TYPES, <u>except</u> 9 Parked motor vehicle. There are two categories: intersection related and non-intersection related.

**Intersection related**: An intersection is the immediate area where two or more public roadways converge/overlap. To be a **Turning crash** occurring at an intersection, the initial impact <u>must</u> take place within the specific boundaries of the intersection. **At least one unit must be in the process of performing a turning maneuver, which begins once the turning unit enters the intersection.** If the intention is to turn <u>and</u> the unit has entered the intersection, it is a Turning crash.

Crashes occurring in turn lanes approaching but not within an intersection should <u>not</u> be coded as a Turning crash. **When a Rear end type of collision occurs** within the boundaries of a channelized turn lane separated from but adjacent to the intersection, it should be coded as a **Rear end crash** (see **# 11**).

**Non-intersection related**: Non-intersection related **Turning crashes** are those occurring at unnamed exit/entry ways to parking lots, alleys, and residential, commercial, or public driveways. (These are <u>not</u> considered intersections.)

- **11 Rear end crash** a collision between motor vehicles where vehicles cause either front end and/or rear end damage to another vehicle. All motor vehicles need not be going forward.
- **12 Sideswipe same direction crash** a collision involving motor vehicles traveling in the same direction and the contact results in damage to the sides of both motor vehicles.
- **13 Sideswipe opposite direction crash** a collision involving motor vehicles approaching each other from opposite directions and the contact results in damage to the sides of both motor vehicles.
- **14 Head-on crash** a collision between two vehicles traveling in opposite directions where the first damage is primarily to the front area of at least one of the involved vehicles.
- 15 Angle crash a collision between two motor vehicles approaching a location, such as an intersection, at an angle to each other where the intent of both motor vehicles is to go straight (forward or reverse). Other locations where an Angle crash may occur would be a driveway entrance or diagonal parking position. An Angle crash cannot occur on an interstate.

**Example 1**: Two motor vehicles are at the same intersection heading in opposite directions. Unit 1 loses control, crosses a median, and strikes Unit 2 at an angle, with nearly all damage occurring on one side of each motor vehicle. This should be coded as 13 - Sideswipe opposite direction, even though the motor vehicles collided at an angle, based on the intended direction of each unit prior to the onset of the crash.

**Example 2**: Unit 1 approaches a four-way stop intersection from the east. Unit 1 slides on a patch of ice, spins through the intersection, and strikes Unit 2, which proceeded southward through the intersection after stopping. Each motor vehicle sustains damage to the front end only. This should be coded as **15** - **Angle based on the intended direction of each unit** prior to the onset of the crash.

# Common Errors

# TYPE OF FIRST CRASH (COLL)

When selecting a code for **COLL**, do <u>not</u> base your choice on what caused the most severe damage/injury. Select the crash code that illustrates what caused the <u>first</u> damage/injury.

A SINGLE VEHICLE CRASH occurs when a motor vehicle's <u>first</u> damage/injury is with someone or something other than another motor vehicle.

**Example**: A motor vehicle skids on ice, loses control, and strikes a guardrail. The **COLL** is **6 - Fixed object** because no damage occurred until the guardrail was struck. Losing control does not cause damage; therefore, it does <u>not</u> warrant a COLL type code of 8 - Other noncollision.

If the <u>first</u> damage/injury occurs when two vehicles strike, select a MULTI-VEHICLE CRASH code (9-15). The vehicles' **intended direction of travel** prior to the crash should be the <u>first</u> consideration when choosing a **COLL** type.

**Example**: Unit 1 and Unit 2 are SB on a four-lane roadway. Unit 1 skids on ice, loses control, spins into the lane of Unit 2, and both vehicles collide at an angle. The **COLL** is **12 - Sideswipe same direction** because COLL is **based on the vehicles' intended direction of travel prior to the crash** and <u>not</u> the position of the vehicles when they collide.

# PRIVATE PROPERTY

Check Yes (# 13) only if the crash began on and all damage occurred on private property.

**Example**: Unit 1 is parked at an incline in a driveway on residential property. Unit 1 rolls down the driveway, travels across the roadway, and crosses a yard. Unit 1 comes to a stop as it strikes the house across the street. The Crash Report should be marked as **Private Property** because even though Unit 1 crossed the roadway, the **crash <u>started on</u> Private Property**, <u>ended on</u> **Private Property**, and <u>all damage occurred on</u> **Private Property**.

If Unit 1 had <u>started on the roadway</u> and ended on Private Property, it would <u>not</u> be a Private Property crash.

ORM

Year

FOR FAST SHIPPING AND DELIVERY OF YOUR ORDER: CALL (217) 782-2575 TTY (217) 524-4875

You may also order materials by **email to <u>dot.crashforms@illinois.gov</u>** or photocopy and complete this form and **fax to (217) 782-5149**.

Indicate the desired amount below. Note that the quantities shipped may be based on available supply.

QUANTITY DESIRED	,	<u>ITEM</u>
		SR 1050 Illinois Traffic Crash Report Form (3-part sets), 10 forms per booklet
		SR 1050A Additional Units/Amended Report Form (3-part sets), singles
		SR 1 Motorist Report Form, singles
		SR 1MCR Electronic Motorist Report Form, tablets of 50
		Motorist Envelope (for use by motorists only)
		Police Fatal Envelope (for immediate submittal of fatal reports)
		Mailing Label (for submitting Police Crash Report copies to IDOT)
		Instruction Manual – for SR 1050/1050A Illinois Traffic Crash Report Form
		Diagram Template – Blue Plastic (large)
		Diagram Template – Clear Plastic (medium)
		Diagram Template – Blue Plastic (small)
		CMV Visor Cards
		Police Report Batch Control Sheet
		Property Damage Estimator (OCC2227)
		Other:

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mail (optional	')												



Police Crash Report Office, P.O. Box 19211, Springfield, IL 62794-9211

# SR 1050

to the Illinois Department of Transportation within 10 Illinois law requires Police Crash Reports to be submitted days after the crash investigation.

# ATTENTION

Questions? Comments? Need to order forms? Call (217) 782-2575

ATTENTION

# **NEW JANUARY 1, 2009**

cases the investigating enforcement agency must complete and submit an SR 1050 report to IDOT. damage increases from \$500 to \$1,500 when all threshold for traffic crashes involving only property Effective January 1, 2009, the legal reporting drivers are insured. However, if any driver does not have insurance, the threshold remains \$500. In both

damage to one of the units. One driver is insured but Example: A 2-vehicle crash occurs causing \$800 the \$501 - \$1,500 threshold (below). the other is not, therefore a report is required using

VEHICLE/PROPERTY DAMAGE TO ANY ONE PERSON'S ☐ \$500 OR LESS ☐ \$501 - \$1,500 ☐ OVER \$1,500

(As it appears on new form)

to either unit, a crash report is required regardless of insured and the damage remains \$800, no report is Using the same crash above, if both drivers are insurance. required. However, if damage over \$1,500 occurred

Note: If insurance is unknown, assume they are uninsured (hit & run or parked-no driver).

Report form to complete and submit to IDOT. exceeded, motorists must be provided a Motorist Regarding motorists: If the threshold amount is

# Also added on January 1, 2009

CIRCLE DAY OF WEEK
SU MO TU WE
TH FR SA

Template 1 (Back)

CONTRIBUTORY CAUSE

One code is clarified and one code is added

42 Distraction – electronic communication device (cell phone, texting, etc.)

43 Distraction – other electronic device (navigation device, DVD player, etc.

# Other Recent Changes

Crash Form

The Commercial Motor Vehicle (CMV) configurations are now on the back cover of this booklet.

NOT ON SCENE (DESK REPORT) Not on Scene is clarified TYPE OF REPORT

One unit type is added to identify UNIT TYPE

PARKED-NO DRIVER

parked cars without drivers.

One code is added.

65 Intoxicated ped/pedal

NUMBER OF OCCUPANTS (OCCS) Clarification is added

Continued

lemplate 1

One code is revised and one is added. EVENT (EVNT)

18 Hit parked vehicle 44 Cable barrier

TRAFFIC CONTROL DEVICE (TRFD) One code is added. 14 Delineators

VEHICLE USE (VEHU) One code is added.

24 Lawn care/ Landscaping

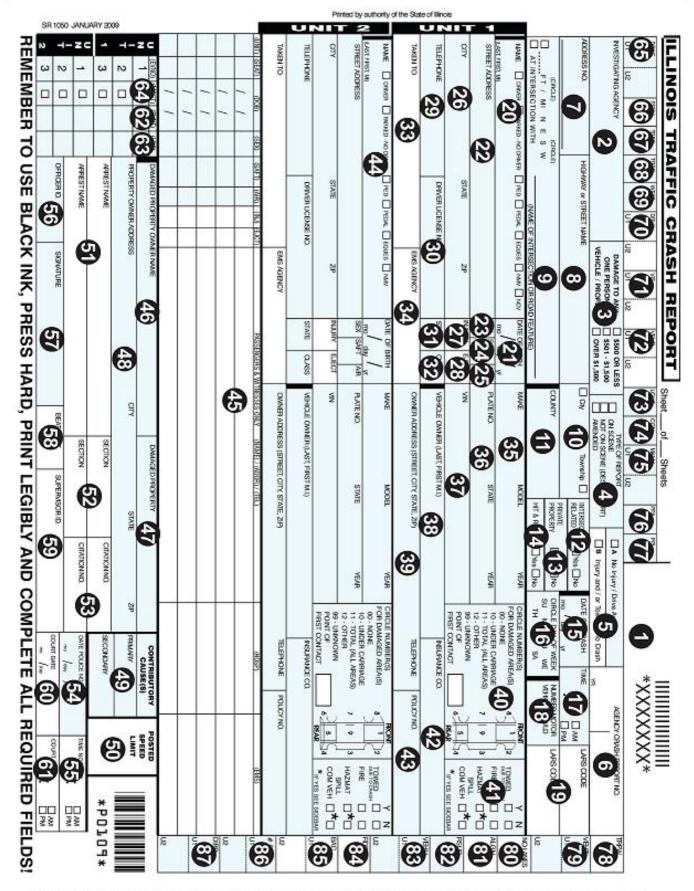
PED/PEDAL LOCATION (PPL) One code is added.

7 Bikeway

PED/PEDAL ACTION (PPA)

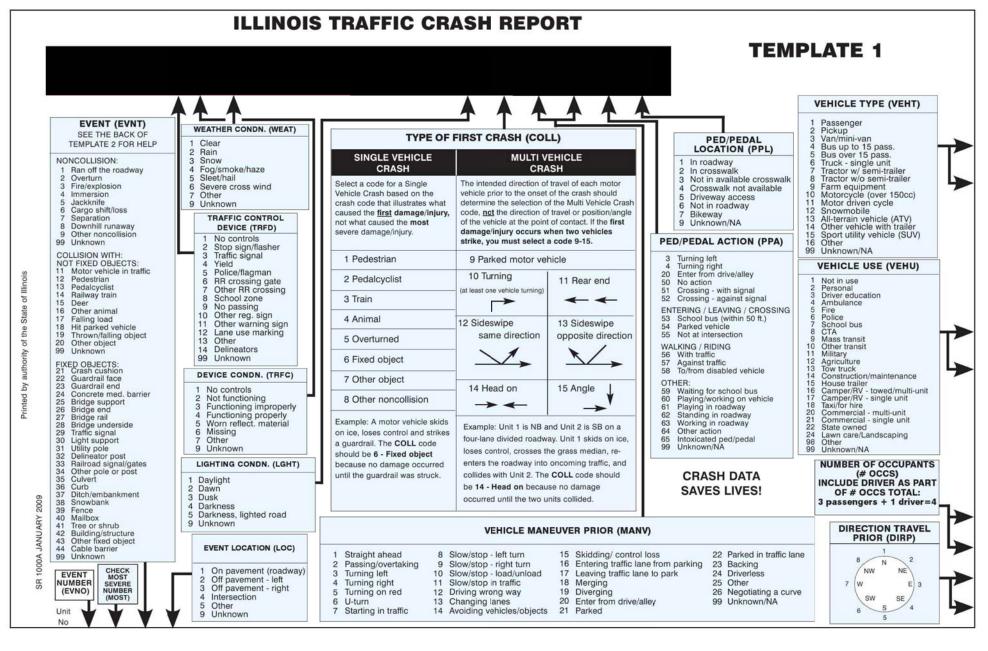
Include driver as part of OCCS total. Example: 3 Passengers + 1 Driver = 4

PLEASE! Choose codes from Template 1 & 2 carefully. Make sure each selection is accurate and valid. Do not use 9 and 99 interchangeably because 9 does not always denote Unknown/NA



\*IF YES TO HAZMAT SPILL OR COM VEH, COMPLETE COMMERCIAL MOTOR VEHICLE AREA ON BACK.

SELECT CODES FROM BACK COVER ON SH BOOKLET.	UE Code:	UI Calor
TOTAL VEHICLE LENGTH (07) IN NO. OF AXLES (02) CRASH LOCATION: CITY OF OF OS VEAREST CITY MILES N E S W OF 03 VEAREST CITY CITY NAME CITY NAME	8	OS, USE GAS
tos II No II Unit		
Did Motor Camer Safety Regulations (MCS) violation contribute to the crash? □ Yes □ No. □ Unividen		
Did HAZIMAT Regulations violation contribute to the crash Qi6	6	
Did HAZMAT spill from the vehicle (do not consider fuel from the vehicle's own tank)?   Yes  No  Unknown	3	
# yes, name on placard 99		
Were HAZMAT placends displayed on the vehicle? ☐ Yes ☐ No		
Source of above info.   Side of Truck — Papers — Driver — Side of Truck — Side of Tr		
8	Uelt No.)	NARRATIVE (Rafer to wehicle by Unit No.)
CITYSTATECID		
		om o
CARRIER NAME		
for specific purpose); or 5. Is any vehicle used to transport any hazardous material (P-VZ/MAT) that requires placerding (example: placards will be displayed on the vehicle).		
4. Is used or designed to transport between 9 and 15 passengers, including the driver, for direct compensation beyond 75 air miles from the driver's work reporting location (example: large van used		
contract carrier transporting employees in the course of their employment (example: employee transporter - usually a van-type vehicle or passenger car); or	8)	
2 Is used or designed to transport more than 15 passengers, including the driver (example: shuttle or direct bus; or 3 is designed to carry 15 or fewer passengers and prevailed by a		
Thy passengers or property area: 1. Has a weight rating of more than 10,000 pounds (example: truck or truck/trailer combination); or	WORK NEW	
IF MORE THAN ONE CRIV IS INVOLVED, USE SR 1050A ADDITIONAL UNITS FORMS. A CMV is defined as any motor vehicle used to transport		
	even if units have been moved prior to the officer's arrival.	^^^^



# **CRASH DATA SAVES LIVES!**

# CONTRIBUTORY CAUSE CODES

onding two-digit code in the appropriate field near the lower r	orrespo	Select a Primary Contributory Cause from the list above and enter the corresponding two-digit code in the appropriate field near the lower right corner on the	Selec
Not applicable	99		
Operating vehicle in erratic, reckless, careless, negligent or aggressive manner	50	Had been drinking (use when arrest is not made)	19
Distraction - other electronic device (navigation device, DVD player, etc.)	43	Unable to determine	18
Distraction - electronic communication device (cell phone, texting, etc.)	42	Physical condition of driver	17
Distraction - from inside vehicle	41	Driving skills/knowledge/experience	15
Distraction - from outside vehicle	40	Vision obscured (signs, tree limbs, buildings, etc.)	14
Evasive action due to animal, object, nonmotorist	32	Road construction/maintenance	13
Improper backing	30	Road engineering/surface/marking defects	12
Passing stopped school bus	29	Weather	=
Failing to reduce speed to avoid crash	28	Equipment - vehicle condition	10
Exceeding safe speed for conditions	27	Under the influence of alcohol/drugs (use when arrest is effected)	80
Disregarding road markings	26	Turning right on red	07
Disregarding traffic signals	25	Improper turning/no signal	90
Disregarding other traffic signs	24	Driving on wrong side/wrong way	05
Disregarding stop sign	23	Improper overtaking/passing	04
Disregarding yield sign	22	Following too closely	03
Animal	21	Failing to yield right-of-way	02
Improper lane usage	20	Exceeding authorized speed limit	9
DE CAUSE TYPE	CODE	E CAUSE TYPE	CODE

Select a Primary Contributory Cause from the list above and enter the corresponding two-digit code in the appropriate field near the lower right corner on the front of the crash report form. When appropriate, enter a Secondary Contributory Cause code accordingly.

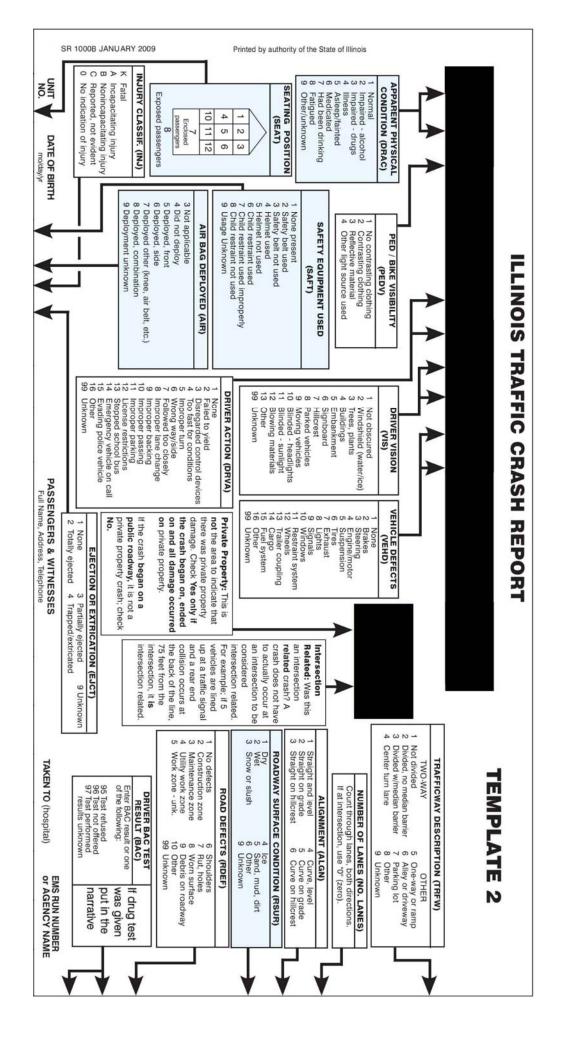
# Definitions

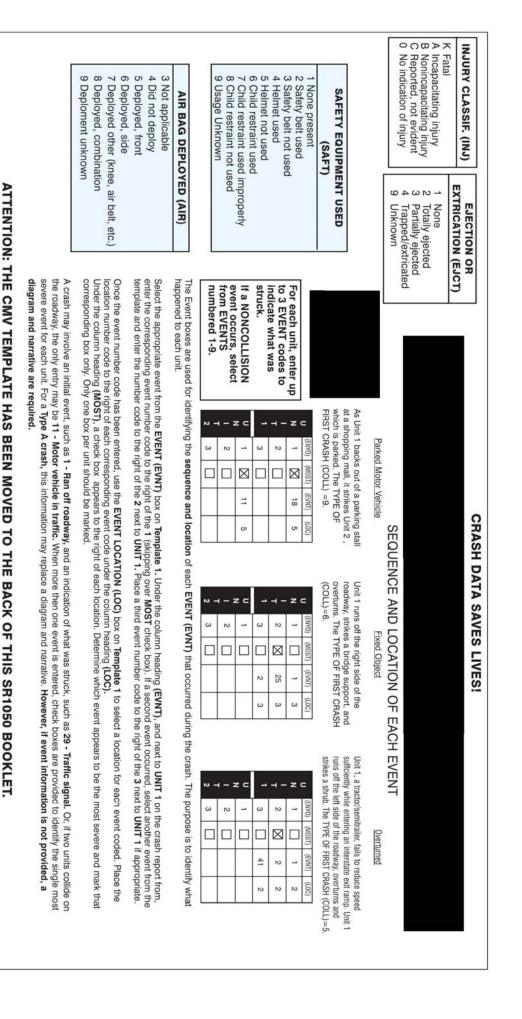
Primary Contributory Cause - The factor which is most significant in causing the crash, as determined by officer judgement.

Secondary Contributory Cause - The second most significant factor contributing to the crash, as determined by officer judgement.

# Example

You determine that vehicle speed is the most significant cause of the crash and cell phone use is the second most significant cause of the crash. Enter 01 in the "PRIMARY" field and 42 in the "SECONDARY" field.





# Commercial Motor Vehicle (CMV)

# What is a Commercial Motor Vehicle (CMV)?

A CMV is defined as any motor vehicle used to transport passengers or property and:

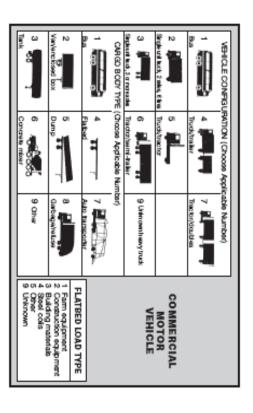
- Has a weight rating of more than 10,000 pounds (example: truck or truck/trafer combination); or
- Is used or designed to transport more than 15 passengers, including the driver (example: shuttle or charter bus); or
- Is designed to carry 15 or fewer passengers and operated by a contract carrier transporting employees in the course of their employment (example: employee transporter - usually a van-type vehicle or passenger car); or
- Is used or designed to transport between 9-15 passengers including the driver, for direct compensation beyond 75 air miles from the driver's work reporting location (example: large van used for specific purpose); or
- Is any vehicle used to transport any hazardous material (Hazmat) that requires placarding (example: placard will be displayed on the vehicle).

Complete all areas within CMV.

Record the **USDOT** number (when it applies).

Record the **ILCC** (state number) when it applies.

If more than one **CMV** is involved, use the Additional Unit/Amended Report.



If you have any questions regarding a Commercial Motor Vehicle Crash please call IDOT Division of Traffic Safety at (217) 785-3032.

# **Appendices**

# **Appendix 1: Motorist Crash Reporting Instructions**

# When should a crash be reported?

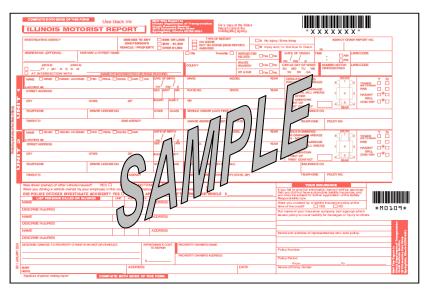
Illinois law: "The driver of a vehicle that is in any manner involved in an accident within this State, resulting in injury to or death of any person, or in which damage to the property of any one person, including himself, in excess of \$1,500 (or \$500 if any of the vehicles involved in the accident is subject to Section 7-601 but is not covered by a liability insurance policy in accordance with Section 7-601) is sustained, shall, as soon as possible but not later than 10 days after the accident, forward a written report of the accident to the Administrator." The Administrator is the Illinois Department of Transportation (IDOT), Division of Traffic Safety. (625 ILCS 5/11-406 Duty to report accident.)

# Where should a crash be reported?

If a police officer does not arrive at the scene of the crash to investigate, the involved driver(s) shall "give notice of the accident by the fastest available means of communication to the local police department if such accident occurs within a municipality or otherwise to the nearest office of the county sheriff or nearest headquarters of the Illinois State Police." (625 ILCS 5/11-407 Immediate notice of accident.)

# How should a crash be reported?

Two forms are used to report crashes occurring in Illinois: the **blue and white** Illinois Traffic Crash Report form (Police Report) and the **red and white** Illinois Motorist Report form (Motorist Report). The forms start out as a three-part, carboned set. Most of the front page is completed by the police on the Police Report. This same information transfers through to two Motorist Reports. The police complete vital crash, driver, and vehicle information and provide a partially completed Motorist Report form to each driver. This allows the police to promptly clear the crash scene, quickly removing all parties from harm's way. Motorists must then complete the remainder of the Motorist Report form and submit it to the Illinois Department of Transportation (IDOT), Division of Traffic Safety within 10 days of the police investigation.



Motorist Report form

# How should the Motorist Report be completed?

Using black ink, print legibly and complete all required fields as accurately and completely as possible. If unable to answer any question, mark "NK" for "not known."

All fields related to motorist proof of insurance must be completed. Failure to provide insurance information will result in the assumption that the motorist does not have automobile liability insurance and may be subject to further application of the Safety Responsibility Law.

Provide clear and complete information about the following:

- (1) The nature and extent of all injuries to persons in your vehicle.

  If a doctor's statement of injury is immediately available, describe the injuries.
- (2) Estimate of repair costs for your vehicle.

  If you have an estimate from a body shop or garage, provide that cost. Otherwise, give your own careful estimate.
- (3) **Damage to property other than vehicles.**Describe the damage and give an estimate of the cost.

Use a second report form or a sheet of paper the same size to report additional vehicles, injured persons, witnesses, or any other information for which there is not sufficient space. Be sure to complete the diagram and narrative on the back of the form and detail all events that occurred.

Providing false information is a class C misdemeanor and can result in a \$500 fine and a 30-day sentence.

Sign the report in the space provided in the lower left corner on the front of the report. Once all fields are completed on the front and back, **make a copy** of the report to keep for your personal records. Mail the original to:

Illinois Department of Transportation
Crash Records Section
3215 Executive Park Drive
Springfield, Illinois 62766-0001

If a form was not provided by the investigating agency, or if the form was lost, please contact the investigating agency and obtain the bar code number on the original Police Report. Then call IDOT at (217) 782-2575 to request a blank Motorist Report form. Enter the bar code number obtained from the investigating agency in the upper right corner on the blank form and complete the form as described above.

Illinois law <u>does not</u> allow IDOT to provide copies of crash reports or divulge any personal information related to a crash. The law also stipulates that investigating agencies *may* furnish copies of reports to anyone at a fee not to exceed \$5 per copy.

If you have questions or comments regarding crash reporting, please call (217) 782-2575 or email IDOT at <a href="mailto:DOT.CRASHFORMS@illinois.gov">DOT.CRASHFORMS@illinois.gov</a>.

# **Appendix 2: Revision History and Document Control**

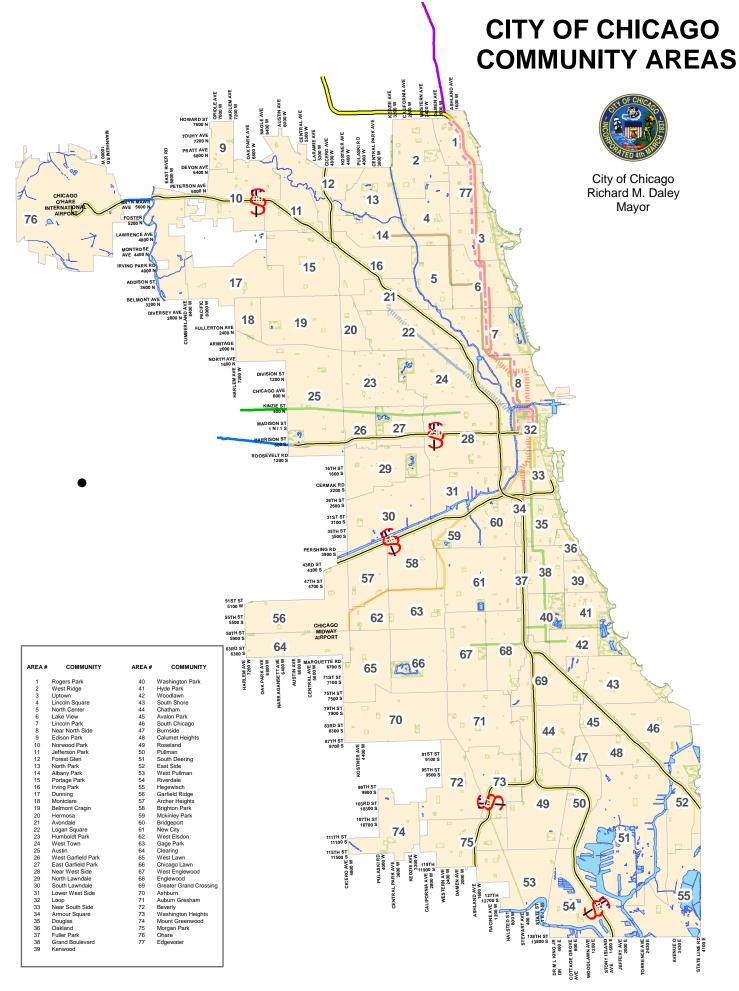
Last updated 06/10/09

The SR 1050 Instruction Manual for Law Enforcement Agencies is posted on IDOT's website: <a href="http://www.dot.il.gov/trafficsafety/SR1050.pdf">http://www.dot.il.gov/trafficsafety/SR1050.pdf</a>. Paper copies are available in the Division of Traffic Safety's Crash Information Section. It is reviewed and updated on an as-needed basis, contingent on revisions to the SR 1050 Illinois Traffic Crash Report form. The current version is indicated in the manual's title, which displays the most recent version's calendar year. Manual revisions are reviewed and approved by the Director of Traffic Safety. Archive versions are available to examine in the Policy & Research Center, Room 320 of the Hanley Building.

Revision Date	Description	Approval
	(No changes were made to the manual from 1998 to 2006	5.)
2006	Reformatted the entire manual. Revised and added codes for new and existing data fields. Revised and added training examples and clarifications.	Mike Stout
2009	Explained the new state law changing the fundamental crash reporting requirement. Reformatted the entire manual. Revised and added training examples and clarifications. Revised and added codes for existing data fields. Added appendices.	Mike Stout

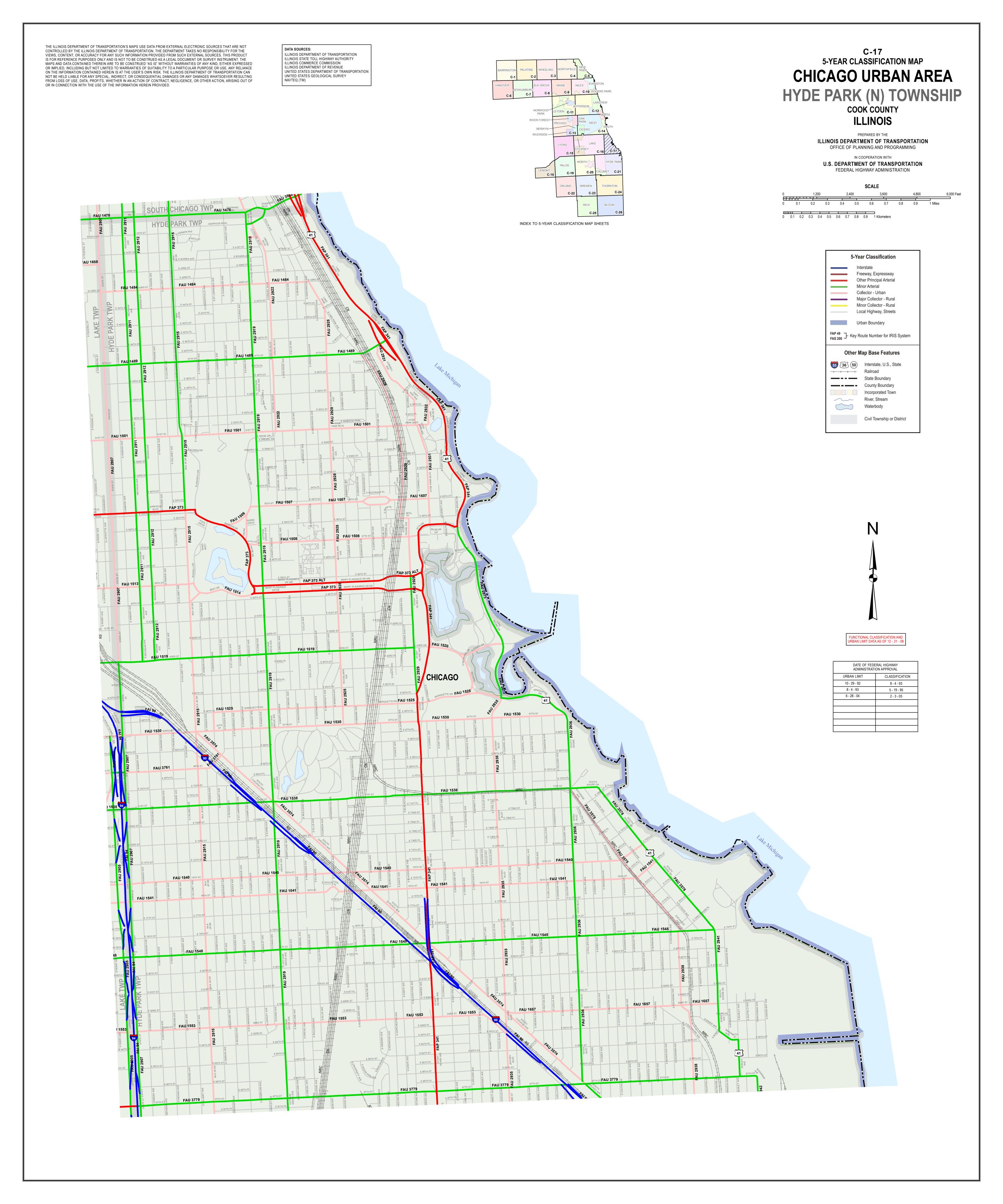
# **APPENDIX C**

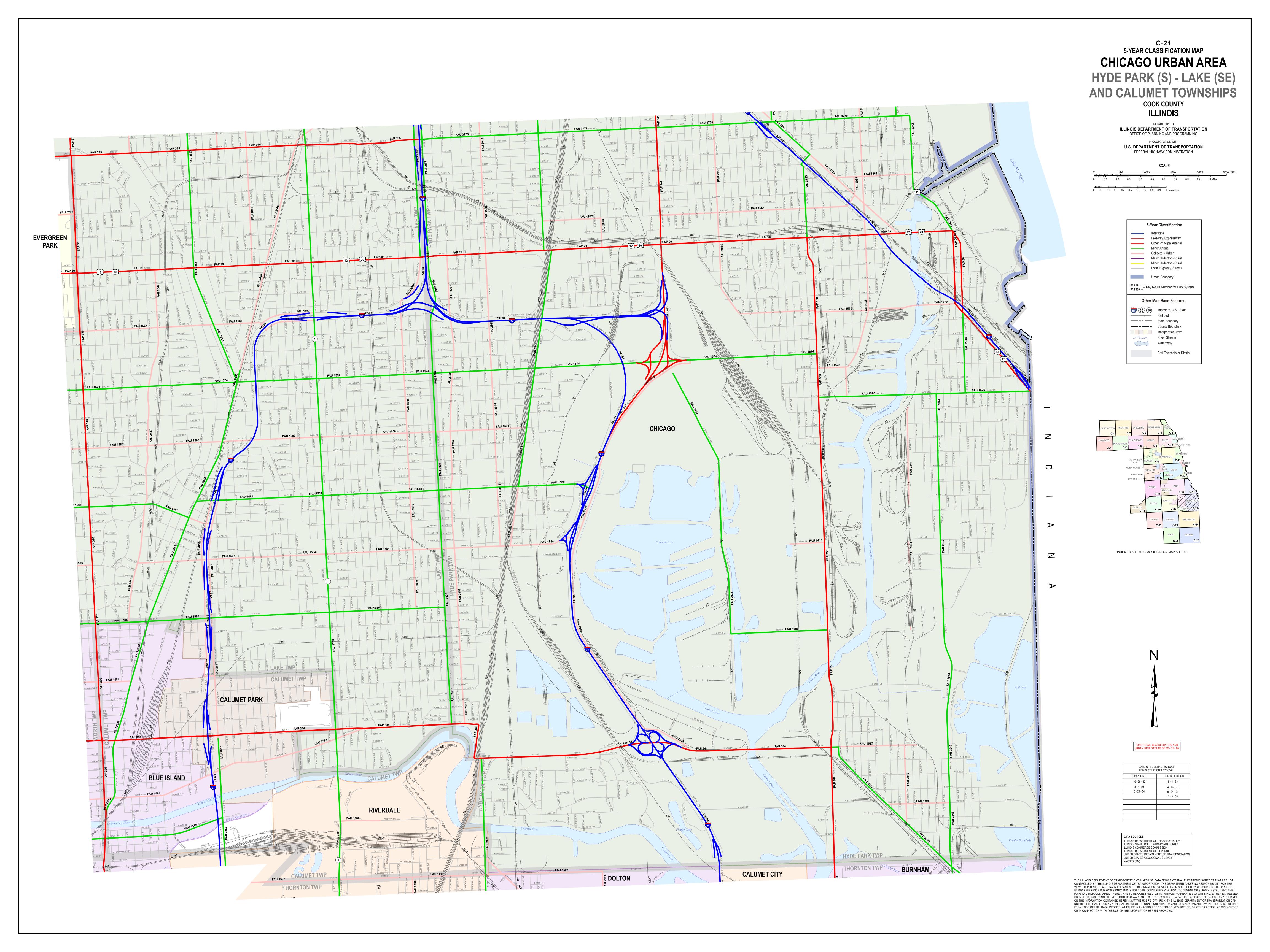
# **Chicago Community Area Reference Map**

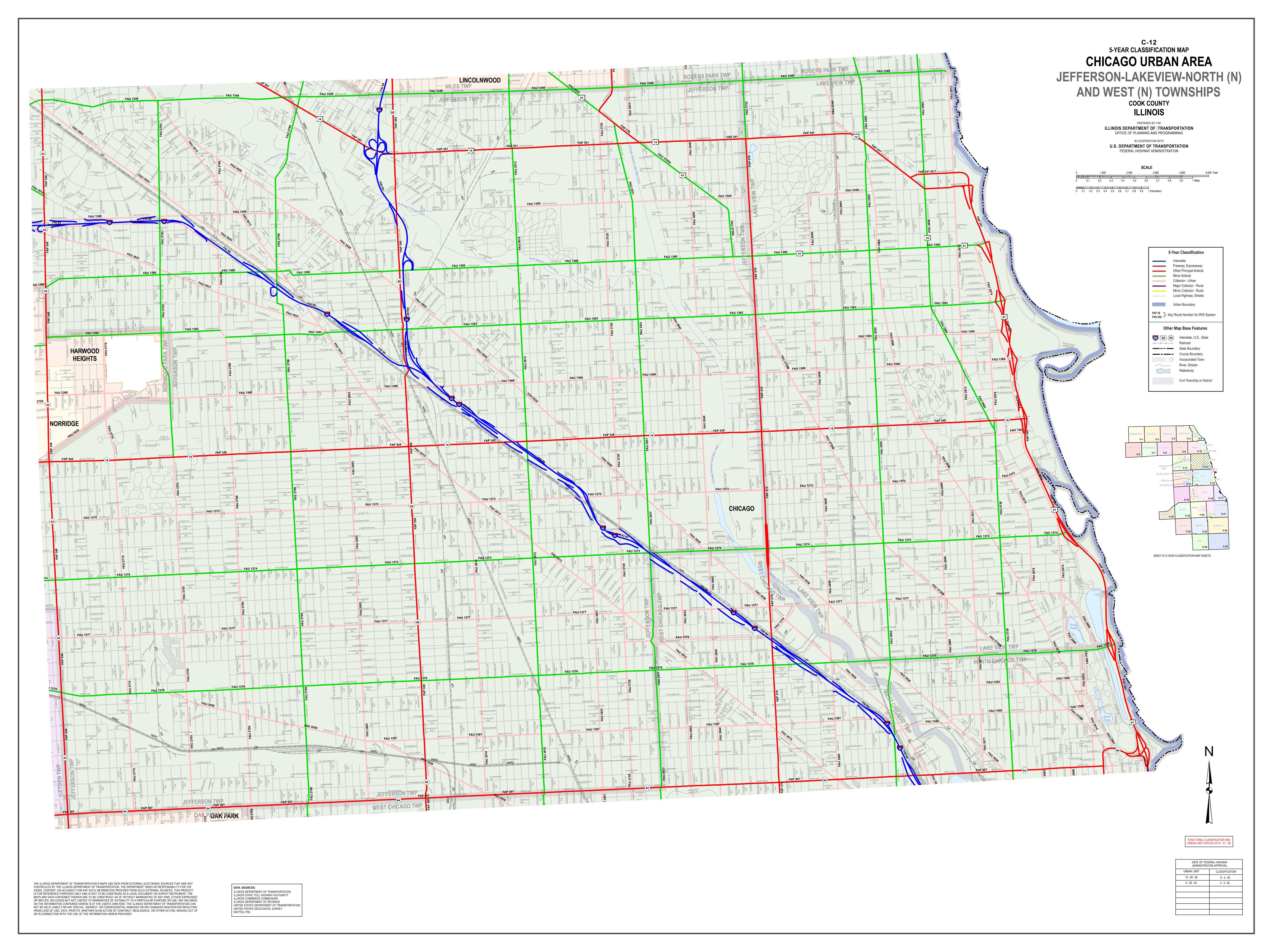


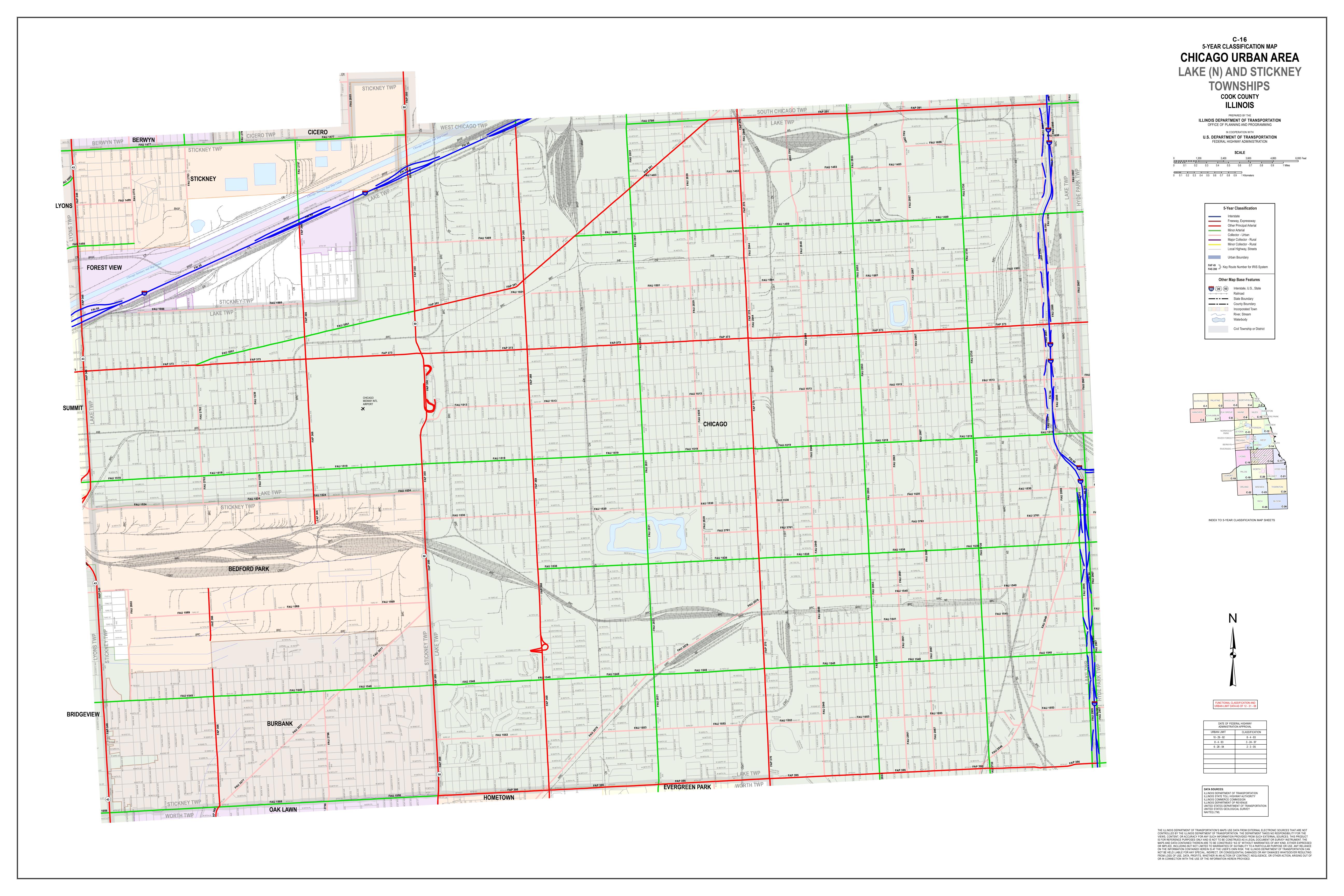
# **APPENDIX D**

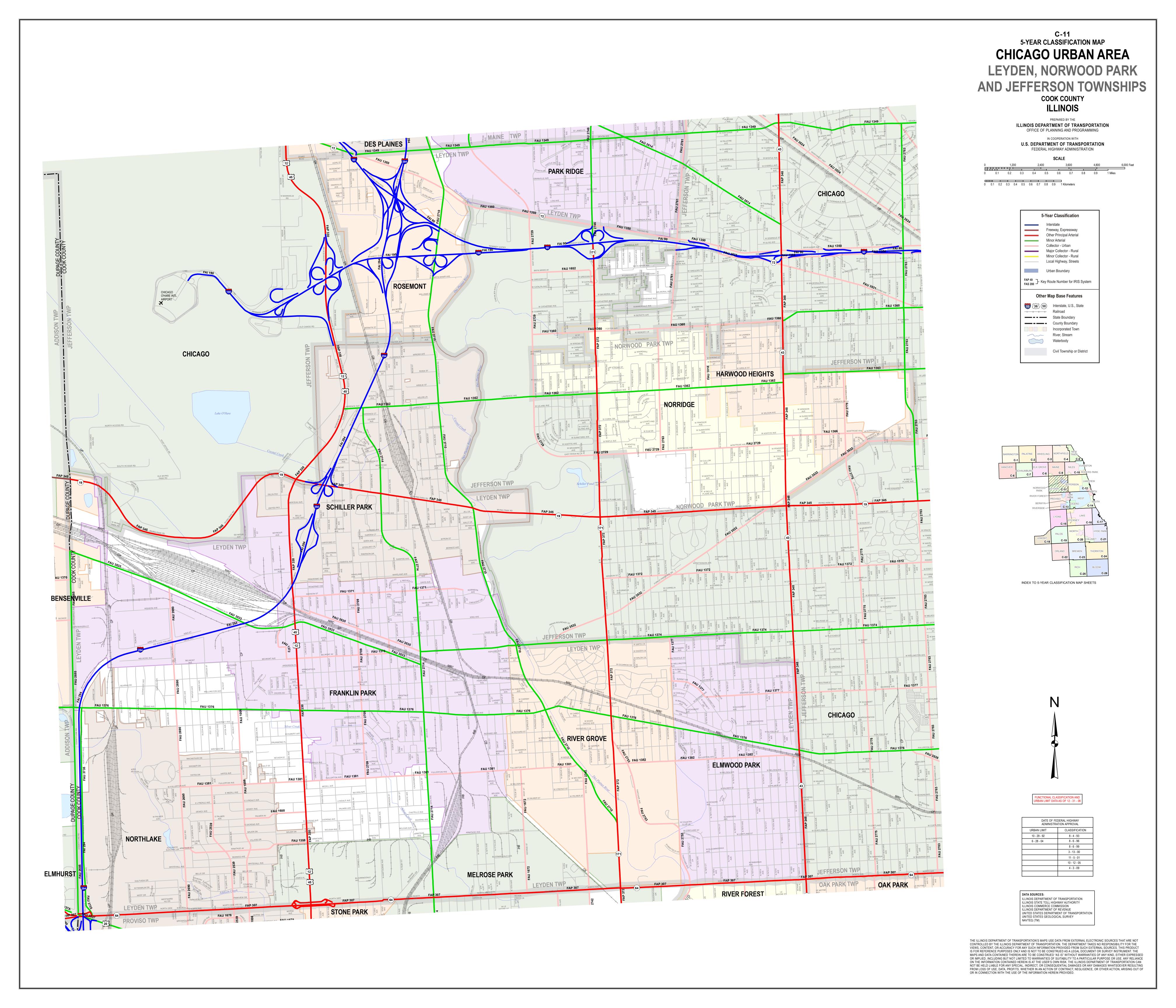
Illinois Department of Transportation Roadway Classifications

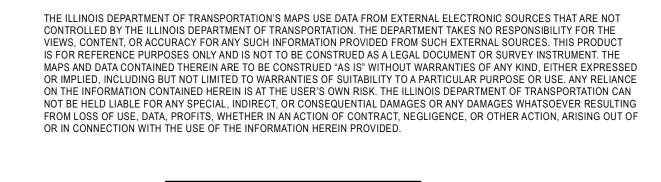


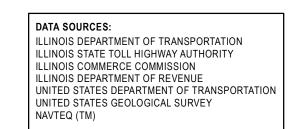




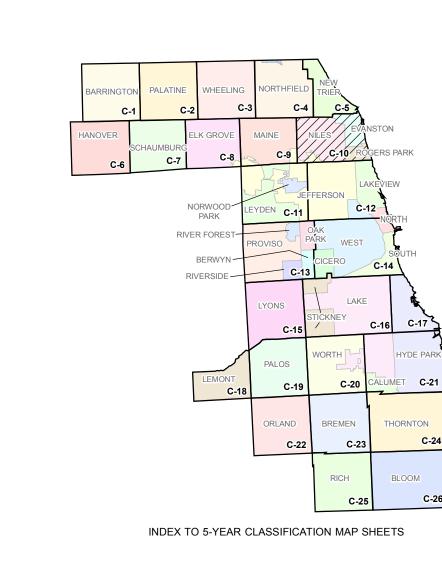


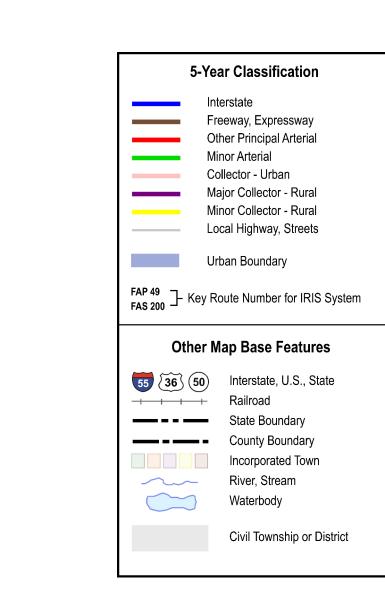






01127111	TA AS OF 08 - 31 - 10
	FEDERAL HIGHWAY RATION APPROVAL
URBAN LIMIT	CLASSIFICATION
10 - 29 - 92	8 - 4 - 93
6 - 28 - 04	1 - 23 - 01
	5 - 24 - 01
	11 - 13 - 07
	1 - 29 - 09





C-10 5-YEAR CLASSIFICATION MAP

# CHICAGO URBAN AREA

NILES, EVANSTON AND ROGERS PARK TOWNSHIPS COOK COUNTY ILLINOIS

PREPARED BY THE

ILLINOIS DEPARTMENT OF TRANSPORTATION

OFFICE OF PLANNING AND PROGRAMMING

IN COOPERATION WITH

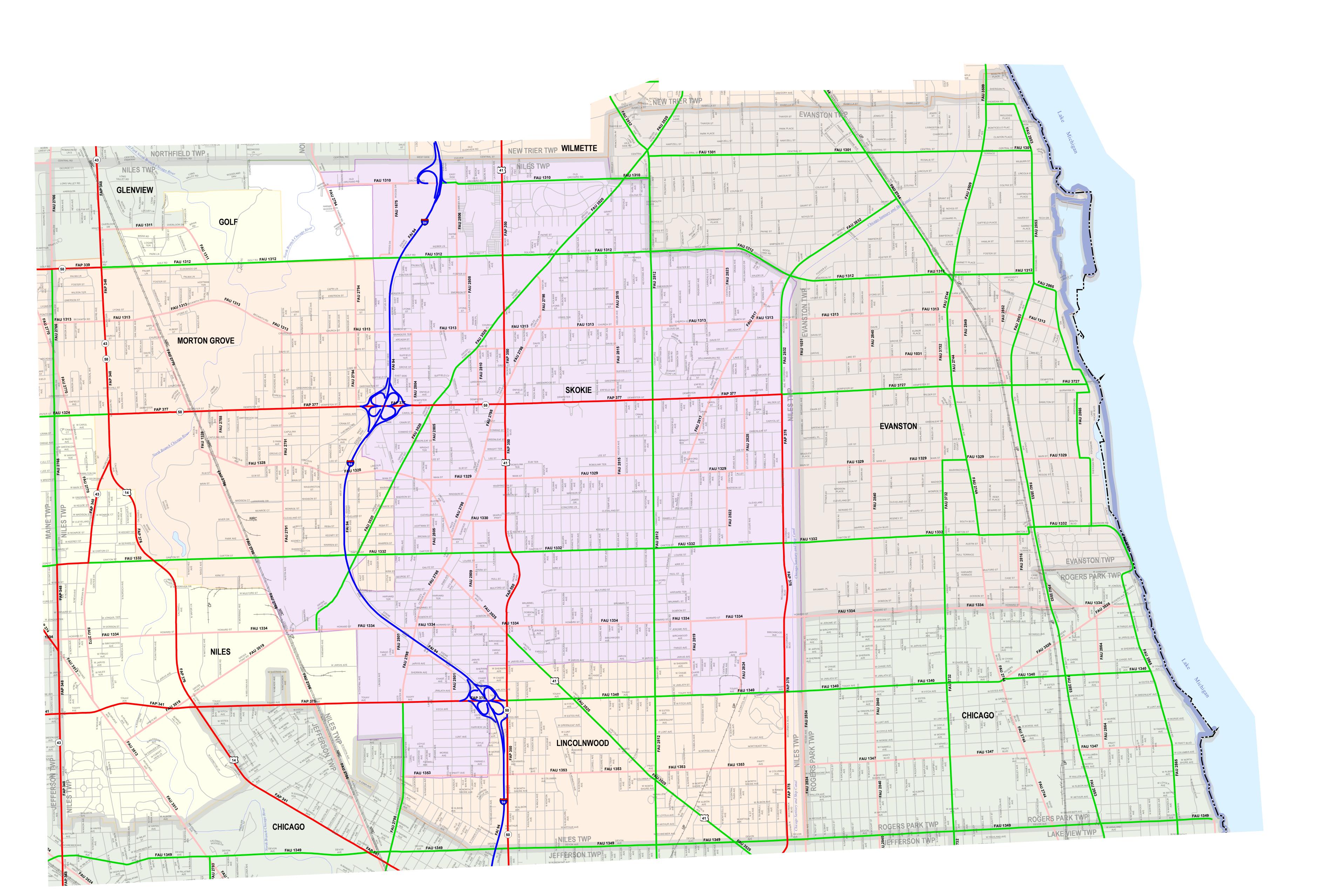
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

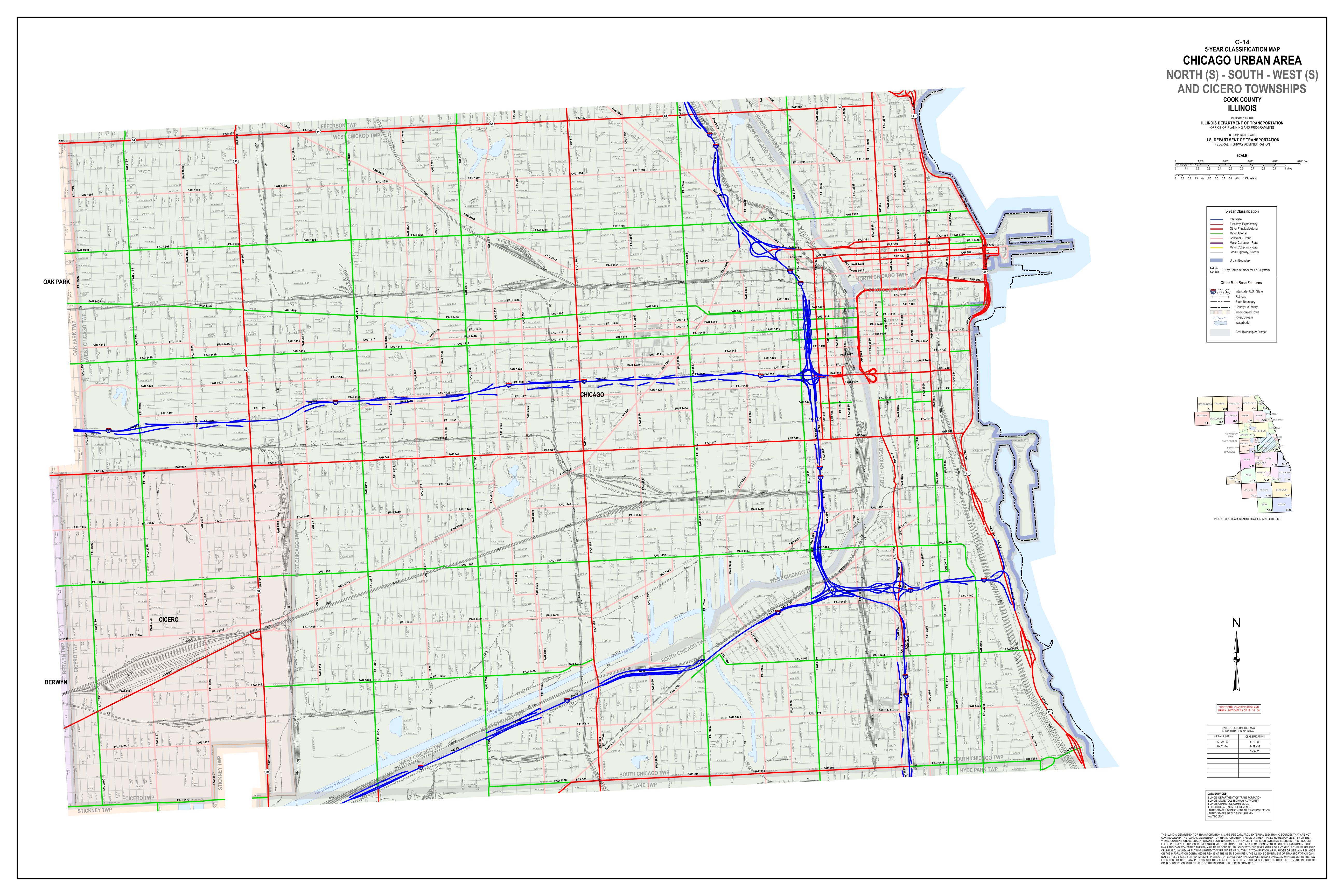
SCALE

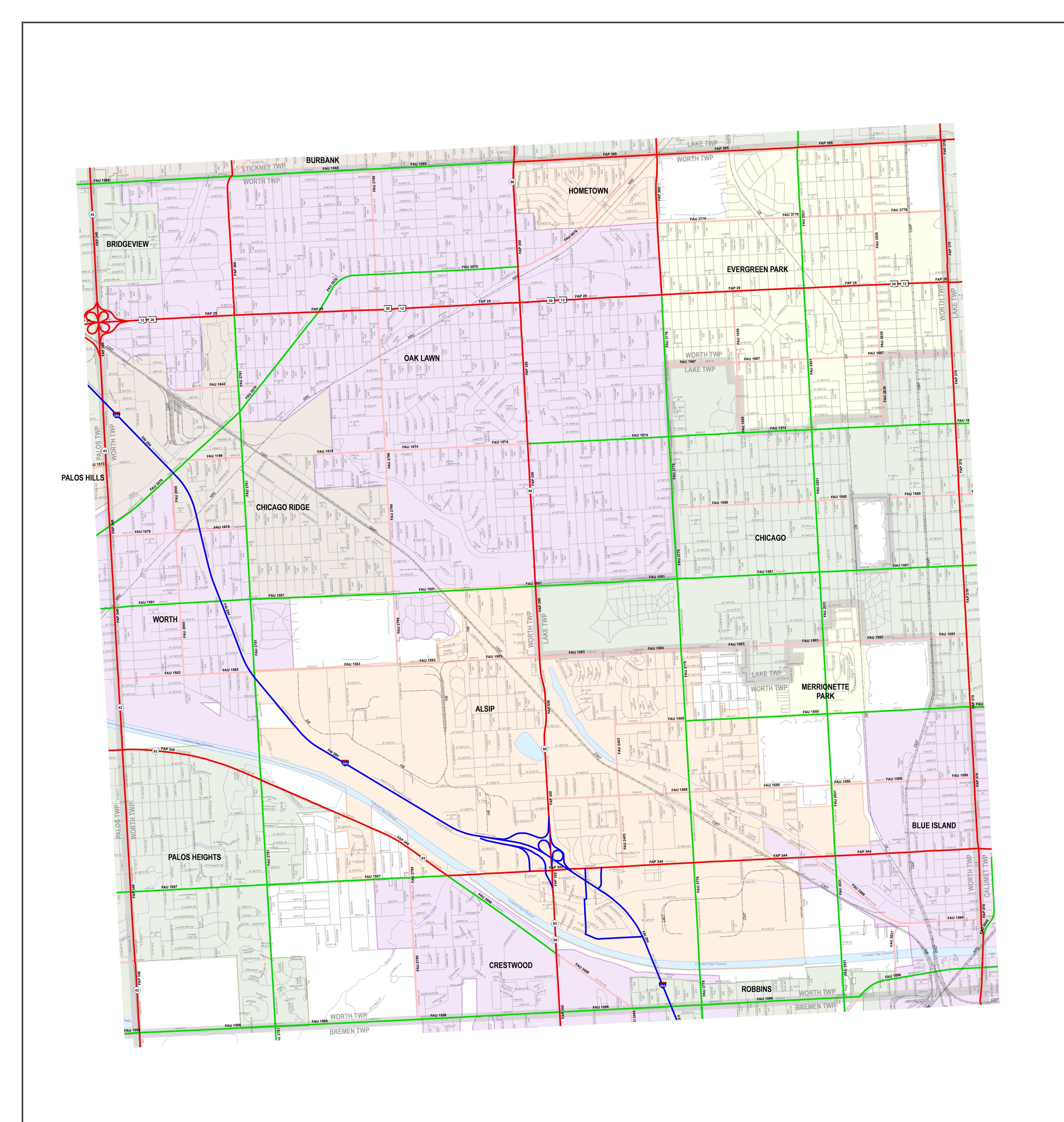
0 1,200 2,400 3,600 4,800 6,000 Feet

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1 Miles

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1 Kilometers







# 5-YEAR CLASSIFICATION MAP CHICAGO URBAN AREA WORTH AND LAKE (SW) TOWNSHIPS COOK COUNTY ILLINOIS

ILLINOIS DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING AND PROGRAMMING
IN COOPERATION WITH

PREPARED BY THE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SCALE

0 1,200 2,400 3,600 4,800 6,000 Fee

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1 Miles

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1 Kilometers

5-Year Classification

Interstate
Freeway, Expressway
Other Principal Arterial
Minor Arterial
Collector - Urban

Local Highway, Streets

Urban Boundary

FAP 49
FAS 200

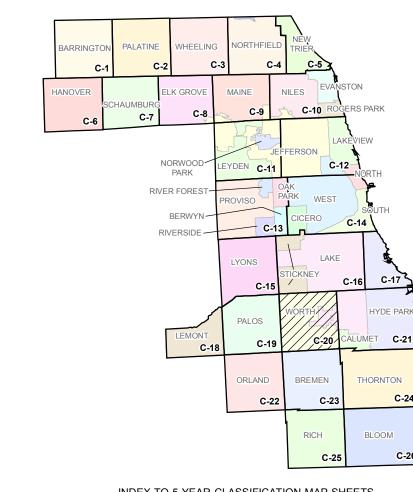
Key Route Number for IRIS System

Major Collector - Rural
Minor Collector - Rural

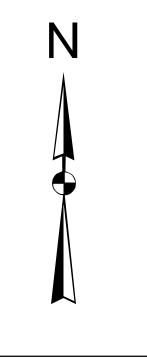
Other Map Base Features

Interstate, U.S., State
Railroad
State Boundary
County Boundary
Incorporated Town
River, Stream
Waterbody

Civil Township or District



INDEX TO 5-YEAR CLASSIFICATION MAP SHEETS



FUNCTIONAL CLASSIFICATION AND URBAN LIMIT DATA AS OF 12 - 31 - 08

DATE OF FEDERAL HIGHWAY ADMINISTRATION APPROVAL		
URBAN LIMIT	CLASSIFICATION	
10 - 29 - 92	8 - 4 - 93	
8 - 4 - 93	11 - 30 - 93	
6 - 28 - 04	12 - 4 - 97	
	5 - 24 - 01	
	12 - 8 - 08	

DATA SOURCES:
ILLINOIS DEPARTMENT OF TRANSPORTATION
ILLINOIS STATE TOLL HIGHWAY AUTHORITY
ILLINOIS COMMERCE COMMISSION
ILLINOIS DEPARTMENT OF REVENUE
UNITED STATES DEPARTMENT OF TRANSPORTATION
UNITED STATES GEOLOGICAL SURVEY
NAVTEQ (TM)

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